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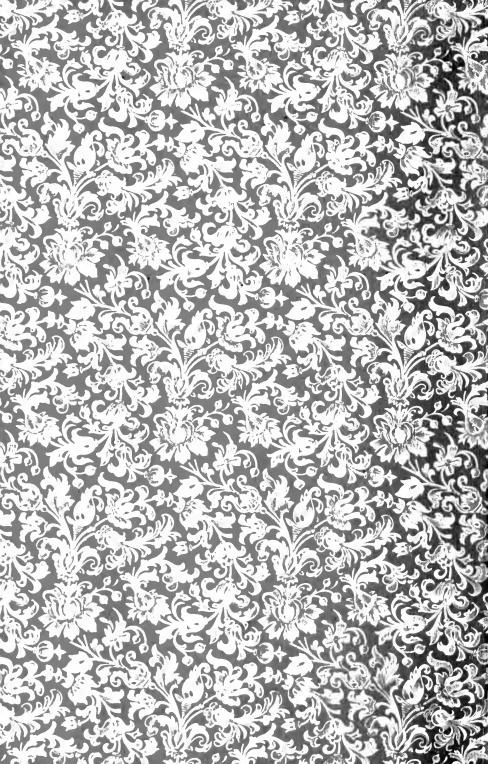
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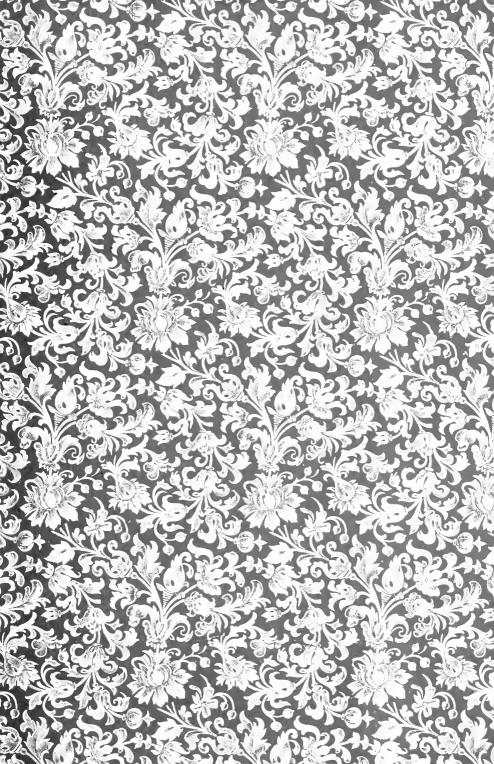
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FOR SESSION 1920-1921

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MONTREAL

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Medical Building.

Demonstrator in Pathology and Assistant Curator of Museum. F. H. MACKAY, B.A., M.D. Demonstrator in Neurology.

399 Stanley St. 33 Durocher St.

C. C. BIRCHARD, M.D. Demonstrator in Medicine.

Medical Building.

A. D. CAMPBELL, M.D. Senior Demonstrator in Anatomy.

4773 Sherbrooke St., Westmount.

H. E. MACDERMOT, M.D. Senior Demonstrator in Anatomy.

4932 Western Ave., Westmount.

And Assistant Demonstrators as shown in the Medical Calendar.

## DEPARTMENT OF PHARMACY.

ALEXANDER B. J. MOORE, Ph.G. Head of the Department, and Professor of Materia Medica and Pharmacy. 12 Winchester Ave., Westmount.

### FACULTY OF AGRICULTURE.

(Macdonald College.)

THE PRINCIPAL.

F. C. Harrison, D.Sc., F.R.S.C. Principal, Dean of the Faculty and Professor of Bacteriology.

WILLIAM LOCHHEAD, B.A., M.Sc., F.A.A.S. Professor of Entomology and Zoology.

Carleton J. Lynde, Ph.D. Professor of Physics.

John Ferguson Snell. B.A., Ph.D., F.C.I.C., F.A.A.S. Professor of Chemistry.

H. Barton, B.S.A.

Professor of Animal Husbandry.

T. G. Bunting, B.S.A.

Professor of Horticulture.

ROBERT SUMMERBY, B.S.A. Professor of Cereal Husbandry.

B. T. Dickson, B.A. *Professor of Botany*.

Morley A. Jull, M.Sc.

Manager and Lecturer in Poultry Department.

(The above Professors constitute the Faculty of Agriculture.)

### OTHER OFFICERS OF INSTRUCTION.

J. B. McCarthy, B.A., M.Sc.
Assistant Professor of Chemistry.

G. P. McRostie, Ph.D.
Assistant Professor of Cercal Husbandry.

George E. Emperley.

Lecturer in Agricultural Engineering and in Manual Training.

[h.:..2]

A. R. Ness, B.S.A.

Lecturer in Animal Husbandry.

L. C. McOuat, B.S.A.

Lecturer in Animal Husbandry.

L. C. RAYMOND, B.S.A.

Lecturer in Cereal Husbandry.

W. J. Tawse, B.S.A.

Lecturer in Horticulture,

E. G. Hood, B.S.A. Lecturer in Bacteriology.

W. A. Maw, B.S.A.

Lecturer in Poultry Husbandry.

Walter Biffen, B.Sc., N.D.D. Lecturer in Botany.

M. H. Howitt, B.S.A.

Lecturer in Horticulture.

CAMPBELL MORRIS, B.S.A.

Assistant in Cereal Husbandry.

MISS MARGARET E. KENNEDY, B.A. (Toronto).

Assistant in Bacteriology.

A. H. WALKER. Florist.

IAMES Ross.

Instructor in Home Dairying.

EMPLOYED UNDER THE AGRICULTURAL INSTRUCTION ACT OF 1913 (Canada).

A. Savage, B.S.A., D.V.M. Veterinarian.

E. M. Du Porte, B.S.A., M.Sc. Assistant in Biology.

E. A. Lods, B.S.A.

Extension Cereal Husbandman.

J. HAROLD McOUAT, B.S.A.

In charge of Extension Work, Rural Schools.

LIONEL H. HAMILTON, B.S.A.

Extension Animal Husbandman.

(To be appointed.)

Extension Poultry Husbandman.

MISS ELEANOR M. ROACH.

Superintendent, Quebec Women's Institutes.

Miss F. A. Buzzell.

Demonstrator to Quebec Women's Institutes.

MISS SUSIE M. CRANE.

Demonstrator to Quebec Women's Institutes.

#### SCHOOL FOR TEACHERS.

SINCLAIR LAIRD, M.A., B.Phil.

Dean of the School for Teachers and Professor of Education.

H. D. BRUNT, M.A., Ph.D. Lecturer in English.

A. R. B. Lockhart, B.A. Lecturer in Elementary Education.

W. P. Percival, B.A.

Lecturer in Mathematics.

JOHN GRANT THOMPSON, M.A.

Lecturer in History and Geography.

Miss-Léa E. Tanner. Lecturer in French.

J. EGBERT McOuat, B.S.A.

Lecturer in Nature Study and Elementary Agriculture.

R. BIRKETT MUSGROVE, F.R.C.A. Lecturer in Music.

(To be appointed.)

Instructor in Drawing and Household Art.

(To be appointed.)

Instructor in Physical Training.

SCHOOL OF HOUSEHOLD SCIENCE.

MISS BESSIE M. PHILIP. Head of the School of Household Science.

Miss J. Babb. Instructor in Household Science.

MISS EVELYN SMITH, B.S. Instructor in Household Science.

MISS M. M. CHUTE. Instructor in Household Science.

MISS E. B. AMENT. Instructor in Household Science.

Mrs. W. J. Wright, R.N. Instructor in Home Nursing.

# FACULTY OF DENTISTRY.

A. W. THORNTON, L.D.S., D.D.S., D.D.Sc. Dean of the Faculty and Professor of Clinical Dentistry.

147 Grey Ave.

GEORGE S. CAMERON, D.D.S. Professor of Prosthetic Dentistry.

Birks' Building, 14 Phillips Square.

FRED. G. HENRY, D.D.S. Professor of Dental Pathology and Therapeutics. 444 Guy St.

F. H. A. Baxter, D.D.S. Professor of Operative Dentistry. 518 St. Catherine St. W.

JAMES B. MORRISON, D.D.S. Birks' Building, Phillips Square. Professor of Orthodontia. (The above Professors constitute the Faculty of Dentistry.)

# OTHER OFFICERS OF INSTRUCTION.

J. S. Dohan, D.D.S. Lecturer in Crown and Bridge Work.

127 Stanley St.

W. L. BOND, B.A., B.C.L., K.C. Lecturer in Dental Jurisprudence.

247 Bishop St.

A. CLIFFORD JACK, D.D.S. Lecturer in Dental Anatomy.

416 Mackay St.

A. W. McClelland, D.D.S Lecturer in Orthodontia.

14 Phillips Square.

A. R. PENNOYER, M.D. Lecturer in Oral Surgery.

418 Mackay St.

F. A. Stevenson, D.D.S., D.M.D. (Harvard). Lecturer in Dental History, Ethics and Economics.

154 Metcalfe St.

ROBT. ALEX. HART. D.D.S. Superintendent of Dental Clinic.

Montreal General Hospital.

### FACULTY OF MUSIC.

H. C. Perrin, Mus. Doc. (Trinity College, Dublin). Dean of the Faculty and Professor of Music. 856 Lorne Crescent.

CLARA LICHTENSTEIN.

Associate Professor of Music, Lecturer in the History of Music and Resident Lecturer in Music. Royal Victoria College.

(Names of additional members of the Faculty, as well as of other Instructors, appear in the special syllabus issued by the Conservatorium of Music.)

# DEPARTMENT OF PHYSICAL EDUCATION.

A. S. Lamb, B.P.E., M.D. Director of the Department.

McGill University.

F. W. Harvey, B.A., M.D. University Medical Officer.

4007 Dorchester St., Westmount.

F. M. VAN WAGNER, B.P.E.

Track Coach, Assistant Physical Director.

Frank J. Shaughnessy, LL.B., P.H.G.
Football and Hockey Coach. 328 Sherbrooke St. W.

GEO. L. Fox, Jr.

Instructor in Gymnastics.

Miss Ethel M. Cartwright, Graduate and Former Assistant of the Chelsea College of Physical Education, London, England. Physical Director for Women.

MISS GEORGINA M. Wood, Graduate Chelsea College of Physical Education, London, England.

Assistant Physical Director for Women.

### DEPARTMENT OF SOCIAL SERVICE.

MR. J. HOWARD T. FALK, Director.

For names of Instructors, see page 299.

# SCHOOL FOR GRADUATE NURSES.

MISS MADELINE SHAW, Directress.

For names of other Instructors, see page 307.

# Emeritus Professors.

(Retaining their Ranks and Titles, but retired from work.)

Hon. Mr. Justice Matthew Hutchison, D.C.L.
Emeritus Professor in the Faculty of Law. Montreal, Qu
Hon. Mr. Justice J. Emery Robboux, D.C.L., Officier de l'Instruction
Publique, Chevalier de la Légion d'Honneur.
Emeritus Professor in the Faculty of Law. 679 University S
DUNCAN McEachran, D.V.S., F.R.C.V.S., LL.D.
Emeritus Dean and Professor in the Faculty of Comparative

Ormsby Grange, Ormstown, Que. Sir Thomas Roddick, M.D., LL.D. (Edin. and Queen's), F.R.C.S (Eng.).

Medicine and Veterinary Science.

Emeritus Dean and Professor of Surgery in the Faculty of Medicine. 705 Sherbrooke St. W. William Gardner, M.D.

Emeritus Professor of Gynæcology. 457 Sherbrooke St. W.

HON. CHARLES J. DOHERTY, K.C., D.C.L., LL.D.

Emeritus Professor of Civil, Commercial and International
Late.

Minister of Justice, Ottawa, Ont.
Francis J. Shepherd, M.D., LL.D. (Edin. and Harvard), F.R.S.C.

(Hon. Edin. and Eng.).

Emeritus Dean and Professor of Anatomy.

152 Mansfield St.
Hon. Sir Charles Davidson, Kt., M.A., D.C.L., LL.D.

Emeritus Professor of Criminal Law. 125 Metcalfe St. Charles E. Moyse, B.A., LL.D.

Emeritus Vice-Principal, Dean of the Faculty of Arts and
Professor of English. 324 Sherbrooke St. W.

EUGENE LAFLEUR, B.A., D.C.L., K.C.

Emeritus Professor of International Law.

AIME Geoffrion, B.C.L., K.C.

AIME Geoffrion, B.C.L., K.C.

Emeritus Professor of Civil Law. 50 Durocher St.

# ACADEMICAL YEAR, 1921-1922

#### SEPTEMBER, 1921

	SEPTEMBER, 1921		
	Thursday		
2 3	Friday		
3	Saturday SUNDAY	Royal Victoria College opened, 1899.	
5	Monday	Labour Day. Library closed. Last day for receiving applications for the	
6	Tuesday	Matriculation Examination.	
7	Wednesday		
8	Thursday Friday		
10	Saturday		
11	SUNDAY	Decision and for Students in Low	
12 13	Monday Tuesday	Register opens for Students in Law.	
14	Wednesday		
15 16	Thursday Friday		
17	Saturday	•	
18	SUNDAY	Strathcona Medical Buildings opened, 1901. Matriculation Examination	
19	Monday	begins. Exhibition, Scholarship and Supplemental Examinations in Arts. Law Faculty and Conservatorium of Music open.	
20	Tuesday	Register opens for Students in Arts, Applied Science, Medicine and Dentistry.	
21 22	Wednesday Thursday		
23	Friday		
24	Saturday		
25	SUNDAY	Meeting of Governors.	
26 27	Monday Tuesday	Meeting of Governors	
28 29	Wednesday Thursday		
30	Friday	Special Registration day for new students in Arts, Applied Science, Medicine and Dentistry.	
		OCTOBER, 1921	
1	Saturday	Special Registration day for students previously enrolled.	
2	SUNDAY	·	
3	Monday	Lectures begin in Arts and Applied Science. Opening address by the Principal at 5 p.m. in the R. V. C. Meeting of Faculty of Applied Science.	
4	Tuesday		
5	Wednesday Thursday	Founder's Birthday. General Convocation for Conferring Degrees.	
7	Friday	Physics Building Committee.	
8	Saturday		
9	SUNDAY		
10	Monday	William Molson Hall opened, 1862. Summer Essays in Applied Science to be sent in. Library Committee. Museum Committee.	
11 12	Tuesday Wednesday	Regular Meeting of Corporation.	
13 14	Thursday Friday	Meeting of Faculty of Arts. Conservatorium of Music opened 1904.	
15	Saturday	Inter-class Sports.	
16	SUNDAY	Forder the Building Constitution Chamber and Mining Building Cons	
17	Monday	Engineering Building Committee. Chemistry and Mining Building Committee.	
18 19	Tuesday Wednesday		
20	Thursday	L'aivergitu Coorta No lectures	
21 22	Friday Saturday	University Sports. No lectures.	
23	SUNDAY		
24 25	Monday Tuesday		
26	Wednesday		
27 28	Thursday Friday	week.	
29	Saturday		

Note-The University is closed on Thanksgiving Day.

Redpath Library opened, 1893. Meeting of Governors.

SUNDAY Monday

30 31

Tuesday

Friday

Wednesday

Thursday

Saturday

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#### NOVEMBER, 1921 Tuesday Wednesday Thursday 3 Meeting of Faculty of Arts. 4 Friday 5 Saturday Macdonald College opened, 1907. 6 SUNDAY Monday Meeting of Faculty of Applied Science. Tuesday 0 Wednesday Thursday 10 11 Friday 12 Saturday 13 SUNDAY 14 Monday 15 Tuesday 16 Wednesday Thursday 17 18 Friday 19 Saturday 20 SUNDAY 21 Monday Engineering Building Committee. Chemistry and Mining Building Committee. 22 Tuesday Meeting of First Year (Arts) Committee. 23 Wednesday 24 Thursday 2.5 Friday 26 Saturday 27 SUNDAY 28 Monday Meeting of Governors. 29 Tuesday 30 Wednesday DECEMBER, 1921 Thursday Meeting of Faculty of Arts. 2 Friday 3 Saturday SUNDAY 4 Meeting of Faculty of Applied Science. Monday Tuesday Wednesday Meeting of Academic Board. 8 Physics Building Committee. Thursday ö Friday 10 Saturday 11 SUNDAY 12 Monday Library Committee. Museum Committee. 13 Tuesday Regular Meeting of Corporation. 14 Wednesday 15 Thursday 16 Friday 17 Saturday 18 SUNDAY 19 Monday Engineering Building Committee. Chemistry and Mining Building Committee. Chemistry and Mining Building opened, 1898. 20 Tuesday 21 Wednesday Last day of lectures in Arts, Law and Applied Science. 22 Thursday 23 Friday 24 Saturday 25 SUNDAY Christmas Day. 26 27 Meeting of Governors. Monday

		JANUARY, 1922
1	SUNDAY	New Year's Day.
2 3	Monday Tuesday	Meeting of Faculty of Applied Science.
4	Wednesday	Lectures resumed in all Faculties.
5 6 7	Thursday Friday Saturday	Meeting of Faculty of Arts.
8	SUNDAY	
9 10 11 12 13 14	Monday Tuesday Wednesday Thursday Friday Saturday	First term lectures end in Arts. First term lectures end in Applied Science.
15	SUNDAY	The control of the special section is
16	Monday	Engineering Building Committee. Chemistry and Mining Building Com-
17 18 19 20 21	Tuesday Wednesday Thursday Friday Saturday	mittee. First Term Examinations in Arts and Law begin. First Term Examinations in Applied Science begin.
22	SUNDAY	
23 24 25 26 27 28	Monday Tuesday Wednesday Thursday Friday Saturday	Second Term opens in Arts and Applied Science.
29	SUNDAY	
30 31	Monday Tuesday	Meeting of Governors.
_		FEBRUARY, 1922
1 2 3 4	Wednesday Thursday Friday Saturday	Physics Building Committee.  Meeting of Faculty of Arts.

Thursday Friday Saturday	Physics Building Committee. Meeting of Faculty of Arts.
SUNDAY	
Monday	Meeting of Faculty of Applied Science. Museum Committee. Library
Tuesday Wednesday Thursday Friday Saturday	Meeting of First Year (Arts) Committee. Regular Meeting of Corporation.
SUNDAY	
Monday Tuesday Wednesday Thursday Friday Saturday	
SUNDAY	
Monday	Engineering Building Committee. Chemistry and Mining Building Committee.
Tuesday Wednesday Thursday Friday Saturday	Physics and Engineering Buildings opened, 1893.
SUNDAY	
Monday Tuesday	Meeting of Governors.
	Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Truesday Sunday Sunday Sunday Thursday Sunday Sunday Monday Tuesday Wednesday Thursday Sunday Monday Tuesday Wednesday Thursday Sunday Monday Monday Monday Monday

		MARCH, 1922
	1 Wednesday 2 Thursday 3 Friday 4 Saturday	Ash Wednesday. No lectures. Meeting of Academic Board.  Meeting of Faculty of Arts.
5	5 SUNDAY	
6 8 9 10	7 Tuesday 8 Wednesday 9 Thursday 9 Friday	Meeting of Faculty of Applied Science.
12	SUNDAY	,
13 14 15 16 17 18	Tuesday Wednesday Thursday Friday	
19	SUNDAY	
20 21 22 23 24 25	Tuesday Wednesday Thursday Friday	Engineering Building Committee. Chemistry and Mining Building Committee.
26	SUNDAY	
27 28 29 30 31	Tuesday Wednesday Thursday	Meeting of Governors.
APRIL, 1922		
		·
1	Saturday	
1 2	Saturday SUNDAY	
2	SUNDAY Monday	Meeting of Faculty of Applied Science.
2	SUNDAY	
2 3 4 5 6 7 8	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.
2 3 4 5 6 7 8 9	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.
2 3 4 5 6 7 8 9	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.
2 3 4 5 6 7 8 9 10 11 12 13 14	SUNDAY  Monday Tuesday Wednesday Thursday Friday Saturday SunDAY  Monday Tuesday Wednesday Thursday Friday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Wednesday Thursday Friday Saturday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science. Good Friday. No lectures. Library closed.  Medical Building burned, 1907. Easter Sunday.  Engineering Building Committee. Chemistry and Mining Building
2 3 4 5 6 7 8 9 10 11 12 13 14 15	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science. Good Friday. No lectures. Library closed.  Medical Building burned, 1907. Easter Sunday.
2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	SUNDAY  Monday Tuesday Wednesday Thursday Friday Saturday  SUNDAY  Monday Tuesday Wednesday Thursday Friday Saturday  SUNDAY  Monday Tuesday Tuesday Tricky Tricky Tricky Tricky Tricky Tricky Thursday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science. Good Friday. No lectures. Library closed.  Medical Building burned, 1907. Easter Sunday.  Engineering Building Committee. Chemistry and Mining Building Committee.
2 3 4 5 5 6 7 8 9 10 111 122 13 14 15 16 17 18 19 20 20 21 22 23 24 25 26 27	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Triesday Saturday SUNDAY Monday Tuesday Wednesday Thursday Thursday Thursday Thursday Sunday Sunday Thursday Thursday Thursday Thursday Thursday Triday Saturday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science. Good Friday. No lectures. Library closed.  Medical Building burned, 1907. Easter Sunday.  Engineering Building Committee. Chemistry and Mining Building Committee.
2 3 4 5 6 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday SUNDAY Monday Tuesday Wednesday Friday Saturday SUNDAY Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Thursday Friday Saturday Sunday Monday Thursday Friday Saturday	Meeting of Faculty of Applied Science.  Macdonald Engineering Building burned, 1907. Physics Building Committee. Meeting of Faculty of Arts.  Library Committee. Museum Committee.  Regular Meeting of Corporation. Second Term Lectures end in Arts, Law and Applied Science. Good Friday. No lectures. Library closed.  Medical Building burned, 1907. Easter Sunday.  Engineering Building Committee. Chemistry and Mining Building Committee. Sessional Examinations in Arts, Law, and Applied Science begin.  Meeting of Governors.

CALENDAR OF MEETINGS 3			
	MAY, 1922		
1 Monday 2 Tuesday 3 Wednesday 4 Thursday 5 Friday 6 Saturday	Meeting of Faculty of Applied Science.  Meeting of Faculty of Arts.		
7 SUNDAY			
8 Monday 9 Tuesday 10 Wednesday 11 Thursday 12 Friday 13 Saturday	Convocation for Conferring Degrees in Arts, Law and Applied Science.		
14 SUNDAY			
15 Monday	Engineering Building Committee. Chemistry and Mining Building Committee.	Z	
16 Tuesday 17 Wednesday 18 Thursday 19 Friday 20 Saturday			
21 SUNDAY			
22 Monday 23 Tuesday 24 Wednesday 25 Thursday 26 Friday 27 Saturday	Victoria Day. Library closed.		
28 SUNDAY			
29 Monday 30 Tuesday 31 Wednesday	Meeting of Governors.		
	JUNE, 1922		
1 Thursday 2 Friday 3 Saturday	Meeting of Faculty of Medicine. King's Birthday.		
4 SUNDAY			
5 Monday 6 Tuesday	New Medical Building opened, 1911.		
7 Wednesday 8 Thursday 9 Friday 10 Saturday	Physics Building Committee.		
11 SUNDAY			
12 Monday 13 Tuesday	Library Committee. Museum Committee.		
14 Wednesday 15 Thursday 16 Friday 17 Saturday	Regular Meeting of Corporation.		
18 SUNDAY			
19 Monday	Engineering Building Committee. Chemistry and Mining Building Committee.	g	
20 Tuesday 21 Wednesday 22 Thursday 23 Friday 24 Saturday	Committee.		
25 SUNDAY			
26 Monday 27 Tuesday 28 Wednesday 29 Thursday 30 Friday	Meeting of Governors.		

29

30

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Tuesday

Thursday

Wednesday

#### JULY, 1922 1 Saturday Dominion Day. Library closed. 2 SUNDAY Monday 4 Tuesday Gift of Frothingham, Molson and Law Properties by Sir Wm. Macdonald. 1911. 5 Wednesday 6 Thursday Friday 8 Saturday 9 SUNDAY 10 Monday 11 Tuesday Wednesday Thursday 1.2 13 14 Friday 15 Saturday SUNDAY 16 17 Monday 18 Tuesday 19 Wednesday 20 Thursday Friday 2.1 22 Saturday 23 SUNDAY 24 Monday 2.5 Tuesday 26 Wednesday 27 Thursday Friday 28 Saturday 29 30 SUNDAY 31 Monday AUGUST, 1922 Tuesday 2 Wednesday Thursday 3 Friday Saturday 6 SUNDAY 7 Monday 8 Tuesday Wednesday 10 Thursday 11 Friday 12 Saturday 13 SUNDAY 14 Monday 15 Tuesday 16 Wednesday Peter Redpath Museum opened, 1882. Thursday 17 18 Friday 10 Saturday 2C SUNDAY 21 Monday Tuesday 22 23 24 Wednesday Thursday 25 Friday 26 Saturday 27 SUNDAY 28 Monday

# McGill University.

# HISTORY AND CONSTITUTION.

### FOUNDATION AND EARLY HISTORY.

McGill University owes its origin to a private endowment. It was founded by the Hon. James McGill, a leading merchant and public-spirited citizen of Montreal, who died in 1813. By his will, dated January 8th, 1811, he bequeathed his property of Burnside (consisting of 46 acres of land with the dwelling house and other buildings thereon) and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the British Government. The four trustees appointed under his will were directed to convey the property of the bequest to the Royal Institution for the Advancement of Learning, a body which, in 1802, had been incorporated by the Legislature "for the establishment of free schools and the advancement of learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, crect and establish on his Burnside estate "a University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate, but, owing to protracted litigation, this was not surrendered to them till 1829, when the work of teaching was begun in two faculties, Arts and Medicine. The record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college

in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its reorganization, and, in 1852, an amended charter was secured. The Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

A course in Law was begun in connection with the Faculty of Arts, in 1848, and the department was established as a separate faculty in 1853. The Faculty of Applied Science was not regularly organized till 1878, but a course in Engineering, which was amplified into the Department of Practical Science in 1871, was given under the Faculty of Arts as far back at 1856. The Faculty of Agriculture was established in 1907.

# Principal Dates in the History of the University.

First Charter obtained.—1821. College opened.—1829. Amended Charter secured.—1852. William Molson Hall opened.—October 10th, 1862. Peter Redpath Museum opened.—August 16th, 1882. Physics and Engineering Buildings opened.—February 24th, 1893. Redpath Library opened.—October 31st, 1893. Chemistry and Mining Building opened.—December 20th, 1898. Royal Victoria College opened.—September 4th, 1899. Strathcona Medical Buildings opened.—September 18th, 1901. Conservatorium of Music opened.—October 14th, 1904. Macdonald Engineering Building burned.—April 5th, 1907. Medical Building burned.—April 16th, 1907. Macdonald College opened.—November 5th, 1907. New Engineering Building opened.—April 27th, 1909. New Medical Building opened.—June 5th, 1911.

Gift of Frothingham, Molson, and Law properties (comprising about 25 acres), from Sir William C. Macdonald.—July 4th, 1911.

One million five hundred thousand dollars raised (chiefly from Montreal citizens) in aid of the funds of the University.—November 20-24, 1911.

Gift of \$1,000,000 from the Carnegie Corporation, New York, "in recognition of the noble and devoted service and sacrifice of McGill towards Canada's part in the Great War."—February 25th, 1918.

Over \$4,000,000 subscribed by citizens of Montreal and graduates for the funds of the University; also \$1,000,000 granted for the

same purpose by the Government of the Province of Quebec, and \$1,000,000 by the Rockefeller Foundation of New York for medical education.—November 15th to November 20th, 1921.

# GOVERNMENT OF THE UNIVERSITY.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as Visitor. This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The Governors of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to twenty-five. Three of these are elected by the members of the Graduates' Society and other appointments are made by the nomination of the remaining members with the approval of the Visitor. The President of the Board of Governors is ex-officio Chancellor of the University.

The **Principal** is the academic head and chief administrative officer. He is appointed by the Board of Governors (of which body he is a member *ex-officio*). He also holds the office of Vice-Chancellor of the University.

The Fellows (42 in number) are selected with reference to the representation of all the faculties and departments of the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows together, constitute the Corporation, the highest academical body. Its powers are fixed by statute, and include the framing of all regulations touching courses of study, matriculation, graduation, discipline and the granting of degrees.

The administration of these regulations, along with direct responsibility for the conduct of the educational work of the University, is entrusted to the several Faculties,—Arts, Medicine, Law, Applied Science, Agriculture, Dentistry, and Music.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the Academic Board of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

# INCORPORATED AND AFFILIATED COLLEGES.

#### INCORPORATED COLLEGES.

Macdonald College is situated at Ste. Anne de Bellevue, about twenty miles from Montreal. It consists of three departments:—The School of Agriculture, the School of Household Science, and the School for Teachers. Courses leading to the Bachelor's and Master's degrees in Agriculture are under the control of the Corporation of McGill University; all the short term courses in agriculture, as well as the course in domestic science, are under the direction of the Macdonald College Committee; and those for diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee. Further information is given on page 290, and full details as to the college buildings, courses, terms of admission fees, etc., will be found in the Macdonald College Announcement, which will be sent on application to the Principal, Macdonald College, Que.

The Royal Victoria College is the women's College of McGill University for courses in the Faculty of Arts. For further particulars, see page 283.

#### AFFILIATED COLLEGES.

Acadia, Alberta and Mount Allison Universities and the University of St. Francis Xavier's College are affiliated to McGill University to the extent that students who have completed the two-year course in Engineering given by these universities are admitted directly to the third year in the courses of Civil, Mining, Metallurgical, Chemical, Mechanical, and Electrical Engineering of the Faculty of Applied Science.

Students from these universities entering the third year must take the summer school suitable to their course, in May, or special schools in September. See page 106.

Alberta University is also affiliated in the Faculty of Medicine, students who have completed the third year in the Medical course there being admitted directly to the fourth year in the Faculty of Medicine of this University.

Royal Military College.—Graduates of the Royal Military College of Kingston are admitted to the third year in the several departments of the Faculty of Applied Science above mentioned. They must in all cases take the respective summer schools pertaining to these several courses, which open in 1921 on September 6th.

Arrangements have also been made whereby graduates and students of the Mechanical Science course in the University of Cambridge will be admitted to advanced standing in the Faculty of Applied Science under definite regulations, particulars of which can be obtained from the Dean of the Faculty.

### AFFILIATED THEOLOGICAL COLLEGES.

The Theological Colleges named below are affiliated to the University under the following arrangements:—Students in these institutions who are pursuing a double course in Arts and Theology (six years at least) will be exempted from a half course in Arts in each of the third and fourth years or a whole course in either.

The Congregational College of Canada, Montreal.—Principal, Rev. D. L. Ritchie, B.A., D.D., 58 McTavish St.

The Diocesan College of Montreal.—Principal, Rev. E. I. Rexford, M.A., LL.D., 743 University St.

The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada.—Principal, Rev. D. J. Fraser, M.A., LL.D., D.D., 69 McTavish St.

The Wesleyan College of Montreal.—Principal, Rev. James Smyth, LL.D., 760 University St.

A movement was inaugurated in the session 1912-13 for a large measure of co-operation among the above Colleges, with the result that a considerable portion of the work which had hitherto been done separately is now taken in joint classes.

For Calendars and all necessary information, apply to the Principals of the several Colleges.

#### AFFILIATION TO OTHER UNIVERSITIES.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the second year sessional examination in Arts, to pursue his studies and take his degree at any of these universities on a reduced period of residence.

### FACULTIES AND COURSES.

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University buildings in Montreal; and also in Macdonald College at Ste. Anne de Bellevue.

### COURSES FOR DEGREES AND DIPLOMAS.

The several courses offered by the University are as follows:-

# In the Faculty of Arts.

For the degree of Bachelor of Arts.

" " Bachelor of Science.

" " Bachelor of Commerce.

The undergraduate courses of study which lead to the degree of B.A. or B.Sc., extend over four sessions of about seven and a half months each. In the second, third and fourth years extensive options are provided, and certain exemptions are also allowed to professional students. (See pages 124 to 126.)

The course for the degree of Bachelor of Commerce extends over three years. Full particulars are given on pages 164 to 175.

The following courses are also offered:—one leading to the degree of Bachelor of Science in Agriculture, with the privilege of qualifying for an Academy Diploma; and another to the degree of Bachelor of Household Science. The first two years are taken in the Faculty of Arts and the last two in the Faculty of Agriculture, or the School of Household Science, as the case may be. Details of these two courses will be found in the Macdonald College Announcement.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine, in eight years, or with that in Applied Science or Dentistry, in six years. (See pages 124 to 126.)

The courses in Arts are open to women (who are educated mainly in separate classes) on equal terms with men. Residential accommodation for women students is provided in the Royal Victoria College. (For further particulars, see page 283.)

Holders of the degree of B.A. from this University are admitted to the study of the learned professions, without premiminary examina-

tion, in the different provinces of Canada, and in Great Britain and Ireland, and elsewhere. They will also be granted Academy Diplomas to teach in the Province of Quebec, provided they have passed an examination in pedagogy and have taught, under supervision, for the time required by law.

### In the Faculty of Applied Science.

For the degree of Bachelor of Architecture (B. Arch.).

For the degree of Bachelor of Science (B.Sc.), in the departments of Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgical Engineering, and Mining Engineering.

The undergraduate courses of study for the degree of B.Sc. extend over four sessions, averaging (with summer sessions) about eight months each, and provide a thorough professional training in the departments mentioned above. The course for the degree of B. Arch. extends over five years. Full particulars are given on pp. 177 to 250.

The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years. (See page 124.)

### In the Faculty of Law.

For the degree of Bachelor of Civil Law (B.C.L.).
" " Bachelor of Laws (LL.B.).

The undergraduate course for each of these degrees extends over three sessions of eight months each.

## In the Faculty of Medicine.

For the degree of Doctor of Medicine and Master of Surgery (M.D., C.M.).

For the Diploma of Public Health. For the Diploma of Pharmacy.

The undergraduate course of study leading to the degree of M.D., C.M., extends over six sessions of eight months each. For further information, see pages 269 to 277.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in eight years. (See page 125.)

The course in Public Health and Sanitary Science is open to those only who have graduated in Medicine, or who possess some other qualification for practice. Generally speaking, it occupies a period of eight months.

### In Macdonald College.

For the degree of Bachelor of Science in Agriculture (two courses).

Other courses in the School of Agriculture.

For the degree of Bachelor of Household Science (two years in Arts, and two in the School of Household Science).

Other courses in the School of Household Science.

The several courses for teachers' diplomas.

The course of study for the degree of Bachelor of Science in Agriculture extends over four sessions of about eight months each. It aims to provide a thorough theoretical and practical training in the several branches of the science. (See also page 290.)

The Macdonald College announcement, containing full details as to buildings, courses, terms of admission, fees, etc., can be obtained from the Principal, Macdonald College P.O., Oue.

### In the Faculty of Dentistry.

For the degree of Doctor of Dental Surgery (D.D.S.).

The undergraduate course of study leading to the degree of D.D.S. extends over four sessions of eight months each. (For further particulars, see page 278.)

The undergraduate course in Arts can be taken along with the undergraduate course in Dentistry in six years. (See page 126.)

# In the Faculty of Music.

For the degrees of Bachelor of Music (Mus. Bac.) and Doctor of Music (Mus. Doc.).

For the Diploma of Licentiate in Music, and the several Grade examination certificates.

Students are admitted as Regular Students taking an organized course leading to the Diploma of Licentiate in Music or the degree of Bachelor of Music (see page 279), or as Partial Students, who under certain conditions and after examination, can obtain certificates bearing the imprimatur of the University. Full details can be obtained on application to the Secretary of the McGill Conservatorium of Music, 323 Sherbrooke street west, Montreal.

#### In the Graduate School.

For the degrees of Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, Doctor of Science, Doctor of Literature and Doctor of Civil Law.

Full information as to admission and departments in which studies are offered will be found on page 335, and can also be obtained from the Chairman or Secretary of the Committee on Graduate Studies, to which Committee are also submitted all applications for the Degrees of D.Sc., D.Litt. and D.C.L. The Chairman of the Committee is Professor H. M. MacKay.

# The Course for the First Class Academy Diploma of the Province of Quebec.

Certain courses are given by the Department of Education, which when supplemented by practice teaching and observation (except in the case of holders of the Intermediate Diploma, who have already satisfied these requirements) lead to a First Class High School Diploma on Graduation. (See page 162.)

The latter diploma can also be obtained by those who qualify for the degree of B.S.A. by taking two years in Arts, followed by two in the Faculty of Agriculture. (See Macdonald College announcement.)

#### Extension Courses.

Evening lectures on a variety of subjects. Particulars will be found on pages 320 to 325.

#### In the School for Graduate Nurses.

Two courses, each covering an academic year, and leading to a certificate: (a) For Public Health and Social Nursing; (b) For teachers and supervisors in Hospitals and Schools of Nursing. (See page 307.)

### In the School of Physical Education.

Two-year course, leading to a diploma. Full particulars can be obtained from the Secretary of the School, Royal Victoria College. See also page 331.

### DEGREES.

The degrees conferred by the University are as follows:—B.A.; B.Sc.; B.Arch.; B.C.L.; LL.B.; B.S.A.; Mus. Bac.; B. Com.; B.H. S.; M.D., C.M.; D.D.S.; M.A.; M.Sc.; LL.M.; Mus. Doc.; D.C.L.; Ph.D.; D.Sc.; D.Litt.; and LL.D. (Honorary).

#### I. LOWER DEGREES.

In order to obtain the degrees of B.A.; B.Sc.; B. Arch.; B.C.L.; LL.B.; B.S.A.; B.Com.; B.H.S.; M.D., C.M.; and D.D.S., students are required to attend lectures (for length of courses, see pages 38 to 40), to complete the course of study for the degree sought, to pass all the prescribed examinations during the course, and any special examination for graduation, and to perform such other exercises as may be prescribed to that end.

The requirements for degrees in Music are stated on page 280.

#### II. HIGHER DEGREES.

All theses for higher degrees, in order to be accepted, must be sent to the Chairman of the Committee on Graduate Studies before April 1st, 1922, except in the case of theses involving experimental work, when the time will be extended to April 16th. The examination will be held in April. No thesis will be received, or examination granted, until the fee for the degree has been paid.

### Degree of M.A.

For requirements, see under "Graduate School," page 335.

### Degree of M.Sc.

For requirements, see under "Graduate School," page 337.

# Degree of LL.M. (Master of Laws).

For requirements, see under "Graduate School," page 338.

# Degree of D.Litt.

Candidates for the degree of Doctor of Literature must be Masters of Arts, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of literature or philosophy. They are required to present a satisfactory thesis or published work.

### Degree of D.Sc.

Candidates for the degree of Doctor of Science must be Masters of Arts, Masters of Science, or Doctors of Medicine, and graduates of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of science. They are required to present a satisfactory thesis or published work.

### Degree of Ph.D.

For requirements, see under "Graduate School," page 338.

# Degree of D.C.L. (Doctor of Civil Law).

For requirements, see under "Graduate School," page 339.

# Degree of LL.D.

The degree of Doctor of Laws is given only as an honorary degree.

### III. ADMISSION "AD EUNDEM GRADUM."

The following are the regulations applicable to admission ad eundem gradum:-

# Extract from the Statutes, Chap. VIII.

"Graduates of other universities desirous of admission to the like "degree in this University, may be so admitted by the Corporation; "due enquiry being first made as to their moral character and sound "learning, and opportunity given to the several Faculties, or the "Committee on Graduate Studies, as may be required, to make such "representation in the premises as they may see fit. Provided always "that, except in the case of candidates proceeding to a higher degree, "such application for admission shall not be put to vote until after "three months' notice, unless by unanimous consent, and shall not be "ordered if as many as five members of the Corporation shall vote "against it."

# Extracts from the Regulations of the Corporation.

"In all cases in which anyone is proposed for an ad eundem "degree, it shall be necessary for the member or members of the "Corporation making such proposal, to state in writing therewith the "grounds upon which the granting of such degree is advocated, and "when the case shall be referred to the Faculties, under Chap. VIII. "of the Statutes, copies of such proposal and grounds shall be transmitted to the Faculties by the Registrar for their consideration."

Note: In considering applications, under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titular

distinction.

"The degree of Bachelor of Arts or Bachelor of Science, ad "cundem, shall be granted only to candidates who are proceeding to "a higher degree, the lower degree being granted only when the

"candidate has qualified for the higher."

"Graduates of other universities desiring an ad eundem degree of this University, as a condition of entering on a course of study leading to a higher degree, shall make application to the Committee on Graduate Studies, who shall immediately take action without previous reference to the various Faculties or to Corporation."

# ENTRANCE REQUIREMENTS.

### JUNIOR MATRICULATION.

#### I. REGULATIONS.

1. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill University and local centres; in September, at Montreal only, except in cases which require special consideration.

ALL INQUIRIES RELATING TO THE EXAMINATIONS SHOULD BE ADDRESSED TO THE REGISTRAR OF THE UNIVERSITY.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in London, Eng., each year, commencing on or about the 12th of June. Full information regarding the exact date of the examination, fee, etc., may be obtained from the Honorary Representative of the University, W. A. Bulkeley-Evans, Esq., M.A., Secretary Headmasters' Conference, 5 Paper Buildings, Temple, London, E.C. 4.

2. Every candidate for examination is required to fill up an application form and return the same with the necessary fee (for which see page 48) one month before the examination begins. Blank forms may be obtained from the Registrar.

No application for examination in June will be received after May 20th.

- 3. The matriculation examination may be taken in two parts, but in order to be valid for entrance it must be completed within two years from the date of the first attempt. Credit will not be given for less than four papers passed at one time,\* except in the case of those who are not required to take as many as four papers to complete the examination; nor will credit be given for less than four papers on certificates which may be presented for exemption from the examination, and no certificate will be accepted which has been obtained under easier conditions than those which are imposed on candidates who are attempting to qualify for entrance by taking the regular University examination.
- 4. Candidates will not be considered as having passed in any subject unless they obtain at least 50 per cent. of the maximum marks

<sup>\*</sup>For the purpose of this regulation, the June and September examinations of the same year will be considered as "one time."

in that subject (in subjects in which two papers are set, 50 per cent. on the two and not less than 40 in either).

This regulation applies also in the case of certificates.

5. Candidates for admission to the Faculties of Arts, Applied Science, Law, Agriculture and the Department of Music who have failed to complete the matriculation requirements will be allowed to enter the first year as conditioned undergraduates, provided (a) that they have not failed in more than two papers (which cannot both be in the mathematical section, nor in two languages) and (b) that they have obtained at least 25 per cent. in the subjects in which they have failed and 50 per cent. of the aggregate.

This regulation applies also to candidates who seek to satisfy the matriculation requirements by means of certificates granted by other recognized examining bodies.

This condition must be removed before the student can be admitted to the second year.

In order to be admitted to the Faculty of Medicine, or Dentistry, a candidate must pass in every subject required.

Students who are conditioned in a language must attend a special tutorial class during their first session, for which a fee of \$10.00 is exigible. Any student so conditioned who fails to attend this class with regularity will not be allowed to present himself for examination.

- 6. Matriculation certificates will be issued to candidates who have passed the entrance examination conducted by the University, but not to those who have qualified by means of certificates, except when the greater part of the requirements has been satisfied by passing the University examination.
- 7. The certificates and diplomas named below will, if submitted to the Registrar, be accepted pro tanto in lieu of the junior matriculation examination, i.e., in so far as the subjects and standard of the examination taken to obtain them are, to the satisfaction of the Matriculation Board, equivalent to those required for the matriculation examination of this University." Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination at the regular time set therefor (June or September), in such of the necessary subjects as are not covered thereby.

Intending students who wish to enter by certificates should under no circumstances come to the University without having first obtained from the Registrar a statement of the value of the certificates they hold, as many of these lack one or more essential subjects, or the work done in a subject may not be adequate, or again, the percentage gained may not be sufficiently high (see regulation 4). Moreover, it must

<sup>†</sup> See, however, for French, page 112.

be remembered that a certificate may admit to one Faculty and not to another. When a diploma or certificate does not show the marks obtained in the several subjects of the examination, it must be accompanied by an official statement containing this information.

### Province of Quebec.

The University School Leaving Certificate. The Intermediate School Diploma.

### Province of Ontario.

Certificate of entrance to the Normal School. Junior Matriculation Certificate,

### Province of New Brunswick.

First Class, Superior and Grammar School Licenses. Grade XI and XII Certificates.

### Province of Nova Scotia.

The Leaving Certificate of Grade XI.

### Province of Prince Edward Island.

First Class Teachers' License. Second Year Certificate of Prince of Wales College.

### Province of British Columbia.

Intermediate Grade Certificates.

#### Province of Manitoba.

Second Class Teachers' Certificate

#### Provinces of Alberta and Saskatchewan.

The Departmental Certificate of Standard XI.

#### Newfoundland.

Associate Grade Certificate.

#### United States.

Certificates granted by the College Entrance Examination Board and by the New York State Board of Regents.

#### Great Britain.

The holder of a Higher Certificate or a School Certificate of the Oxford and Cambridge Schools Examination Board, of the Senior Certificate of the Oxford or Cambridge Board of Examiners, of a

First Class Certificate of the College of Preceptors or of a Higher Examination Certificate of the Scotch and Welsh Educational Departments is entitled to exemption from the matriculation examination, pro tanto, if the candidate has at one and the same examination passed in certain specified subjects.

Applications for exemption from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

#### II. MATRICULATION EXAMINATION FEES.

For an examination in six or more papers	\$7.00
(For examination at a local centre where not more than four candidates are writing, the fee will be determined by the Registrar.)	
For an examination in from three to five papers	4.00 2.00
For examination of certificates, in respect of which candidates are exempted from the whole of the matriculation examination	2.00

Matriculation examination fees must be sent to the University Registrar at the time of application for the examination. No application will be accepted unless accompanied by the regular fee.

Certificates will be issued to successful candidates without additional fee.

### III. SUBJECTS OF EXAMINATION.

### Faculty of Arts.

For candidates intending to take the B.A. course.

- I. English (two papers).
- 2. History (one paper).
- 3. Latin or Greek (two papers).
- One of the following (two papers in each): Greek or Latin (the one not already chosen), French, German.
- 5. Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]
- One of the following:

   Botany, Chemistry, Physics, Physiography (one paper);
   a Language not already chosen (two papers).

Holders of Intermediate Diplomas who are certified by the Dean of the School for Teachers of Macdonald College to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the first year in Arts.

For candidates intending to take the B.Sc. course in Arts, or the course leading to the degree of Bachelor of Science in Agriculture (two years in Arts and two in Agriculture).

- 1. English (two papers).
- 2. History (one paper).
- 3. French (two papers).
- 4. Latin or German (two papers) or Physics (one paper).
- Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]
- One of the following:
   Botany, Chemistry, Physics (if not already chosen),
   Physiography (one paper); Latin, if not already chosen (two papers); Greek (two papers).

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for medical registration it is necessary to take Latin.

For candidates entering on the course for the Degree of Bachelor of Commerce.

The ordinary matriculation examination for the B.A., or the B.Sc. Course, except that in the case of the latter Spanish is allowed as an option for French.

# Faculty of Applied Science.

(For all courses leading to the Degree of B.Sc. in the different branches of Engineering.)

- 1. English (two papers).
- 2. History (one paper).
- One of the following: French, German, Latin, Greek (two papers).
- Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]
- 5. Advanced Mathematics [Algebra (one paper), Geometry (one paper), Trigonometry (one paper).]
- 6. One of the following:

Botany, Chemistry, Physics, Physiography (one paper), a Language not already chosen (two papers).

(For the course leading to the Degree of B. Arch.)

- 1. English (two papers).
- 2. History (one paper).
- 3. One of the following: French, German, Latin, Greek (two papers).
- 4. Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]
- 5. Advanced Mathematics [Algebra (one paper), Geometry (one paper), Trigonometry (one paper).]
- One of the following: Botany, Chemistry, Physics, Physiography (one paper), a Language not already chosen (two papers).
- 7. Freehand and Geometrical Drawing.

Under head No. 6, candidates are recommended to choose Physics, as a knowledge of this subject is of great value for those who intend to follow a course in Applied Science.

In the case of No. 7, applicants may send specimens of their work to the Head of the Department or take an examination at the time of the regular matriculation examination in September. No examinations taken elsewhere are accepted as an equivalent for this subject.

No student will be admitted to the Department of Architecture as an undergraduate, until he has satisfied the matriculation requirements in drawing.

## Faculties of Medicine and Dentistry.

- I. English (two papers).
- 2. History (one paper).
- 3. Latin (two papers.)
- 4. One of the following (two papers in each):— French, German, Greek.
- 5. Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]
- 6. One of the following:-

Botany, Chemistry, Physics, Physiography (one paper).

Commencing with the session 1923-24, the course in Medicine will extend over five years, to be preceded by the following requirements:

Senior Matriculation or First Year Arts, covering:—English; History; Mathematics; Latin; French, German or Greek; Physics, and possibly Chemistry.

Second Year Arts:-Physics, Chemistry, Biology.

For the session 1922-23 Senior Matriculation, or one year in Arts (including the first five of the subjects named above), will be required for admission to this Faculty.

In addition to the certificates mentioned on pages 47 and 48, the following are accepted pro tanto in lieu of the matriculation examination in these Faculties:—

The degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical or Dental Council, as the case may be.

In the case of candidates from the United States, a certificate of having passed a State or University examination.

No candidate will be admitted to the Faculties of Medicine or Dentistry without having satisfied all the matriculation examination requirements.

Those who intend to practise medicine in any of the Provinces of Canada will obtain information regarding registration and admission to study by corresponding with the Registrars of the several Provincial Medical Councils. (For names, see page 271.)

The requirements for the admission of women to the Faculty of Medicine are as follows:—

(1) B.A. or B.Sc. degree from a recognized university, or (2) completion of the first two years in the Faculty of Arts at any approved university.

In either case, candidates must have satisfied the Matriculation requirements in Latin.

# Faculty of Law.

First Year Arts (B.A. course) of McGill University or Senior Matriculation for the B.A. degree, as specified on page 63, or certificates which can be accepted as the equivalent of these.\*

Candidates who intend to practise law or to be admitted to the notarial profession in the Province of Quebec are referred to the statutory requirements as shown on page 265. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to enter.

No candidate for the B.C.L. degree who intends to practise law in the Province of Quebec will be admitted to the Faculty, who has not previously satisfied all the examination requirements of the Council of the Bar.

<sup>\*</sup> For the session 1921-22, applications from candidates who have satisfied the Junior Matriculation requirements will be considered on their merits.

### Faculty of Agriculture.

(For the course leading to the Degree of B.S.A.)

I. English (two papers).

2. History (one paper).

3. Latin or French or German (two papers).

4. Elementary Mathematics [Algebra (one paper) and Geometry (one paper).]

5. Any one of the following:

Botany, Chemistry, Physics, Zoology, Physiography (one paper).

A matriculation certificate for entrance to any other Faculty of the University will also be accepted.

# Faculty of Music.

(For the course leading to the Degree of Bachelor of Music.)

The examination for entrance to the Faculty of Arts, with Rudiments of Music added, or the following:—

- I. English (two.papers).
- 2. History (one paper).
- Two of the following: French, German, Italian, Latin (two papers).

4. Arithmetic or Algebra or Geometry (one paper).

5. Rudiments of Music [musical intervals, scales clefs, time signatures, construction of chords, elementary harmony to chord of dominant seventh (one paper)].

## IV. REQUIREMENTS IN EACH SUBJECT.

### Arithmetic.\*

All the ordinary rules, including square root, and a knowledge of the metric system.

One examination paper of two hours.

# History and Historical Geography.

The Groundwork of British History, editors Warner and Marten (Blackie & Sons, Edinburgh), Sec. III, from 1714 to 1911; Canadian History (Grant), 1763 to date.

For candidates outside of Canada an option will be allowed in this subject on British History from 1485 to 1911, same text-book as is prescribed above, Secs. II and III.

The geography required will be that relating to the history prescribed.

<sup>\*</sup> For candidates intending to enter the Faculty of Music.

An option will be allowed on the Ontario requirements in this subject.

One examination paper of two hours.

### English.

A. Composition. As in the Ontario High School Composition, pages 198 to the end (Copp, Clark Co.), with a short essay on a general subject and two or three others based on the works prescribed for reading, as follows:—George Eliot, Silas Marner (The Macmillan Co. of Canada); Shakespeare, The Tempest (The Macmillan Co. of Canada); Macaulay, Warren Hastings.

These books should be read carefully, but the student's attention should not be so fixed upon details that he fails to appreciate the main purpose and beauty of the work.

Frequent practice in composition is essential.

B. Literature (for critical study).—Shakespeare, Julius Cæsar; Poems of the Romantic Revival, pages 107 to 200 (Copp, Clark Co., Ltd., Toronto).

Candidates will be expected to have memorized some of the finest passages.

Two examination papers of two hours each, one on Composition and the other on Literature (for critical study).

An alternative paper will be set on the work specified in English for the Junior Matriculation Examination of the Province of Ontario.

Spelling will be tested by the candidates' papers in English. Examiners in other subjects will also take note of mis-spelled words and will report flagrant cases to the Board.

### Greek.

Texts:—Philpotts and Jerram, Easy Selections from Xenophon, chaps. 3, 4, 5; Homer, Iliad I, lines 1 to 350.

Grammar.—Knowledge of grammar will be tested by translation and by grammatical questions based on the specified texts.

Translation at Sight from Greek into English.

Two papers of two hours each will be set; one on the prescribed texts, with questions in grammar; the other on translation at sight from Greek into English and translation of easy English prose sentences into Greek.

Alternative questions will be set on the work prescribed in Greek for the Junior Matriculation Examination of the Province of Ontario, if this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

### Latin.

Texts:—Cæsar, De Bello Gallico, Book IV, chaps. 20 to 38, and Book V, chaps. 1 to 23; Virgil, Aeneid I (Wainwright, Bell's Illustrated Classics), verses 1 to 510.

*Grammar.*—Knowledge of grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

Translation at Sight from Latin into English.

Composition.—Translation into Latin of detached English sentences and easy narrative based on the prescribed texts.

Two papers of two hours each will be set; one on authors and sight; the other on grammar and translation of English into Latin.

Note.—The "Roman" method of pronouncing Latin is recommended.

An alternative paper will be set on the Latin texts prescribed for the Junior Matriculation Examination of the Province of Ontario, if these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of examination.

### French.

Grammar.—A thorough knowledge of French accidence and of those points of syntax which are of more frequent occurrence in an ordinary easy style.

Translation at Sight into English of a French passage of moderate difficulty.

Translation at Sight into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French grammar.

Books recommended:—Fraser and Squair's French Grammar or Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

A list of French texts suitable for class reading can be obtained by applying to the Registrar.

Two papers will be set, of two hours each, one on grammar, including translation of short English sentences into French, and one on translation of continuous passages from French into English and from English into French.

### German.

Grammar.—A thorough knowledge of German accidence and syntax, as in Van der Smissen, or any other German grammar of equally good standing.

Translation at Sight into English of a German passage of moderate difficulty.

Translation into German of detached English sentences and of an easy English passage. Material for such translation is selected with a view to exemplifying the points of grammar included within the above limits.

Texts:—(Translation and grammatical study):—

Guerber, Märchen und Erzaplungen (Heath), omitting Nos. 3, 4, 10, 14 and Poems; Baumbach, Das Habichtsfraulein (Heath).

The Ontario Junior Matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

Two papers will be set, of two hours each, one on prescribed texts and grammar, including translation of short English sentences into German, and one on translation of continuous passages from German into English and from English into German.

# Spanish.

Grammar.—Translation from English into Spanish of short sentences involving important rules of syntax; translation from prescribed books; unseen translation from Spanish into English; Spanish composition: the translation of easy continued prose passages from English into Spanish.

Two papers will be set, each of two hours.

Books recommended:—Elementary Spanish grammar, Sanin Cano (Oxford Press); Spanish Composition, Loiseaux (Silver, Burdett & Company).

Prescribed books:—Novelas Cortas, by Alarcon (Ginn & Company); Spanish Reader, Sanin Cano (Oxford Press).

# Elementary Mathematics.

Algebra.—Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra, to the end of surds (omitting portions marked with an asterisk), or as in similar text-books.

One examination paper of two hours.

Geometry.—The paper shall contain questions on practical and on theoretical geometry. Every candidate shall be expected to answer

questions in both branches of the subject.

The questions on practical geometry shall be set on the constructions contained in the annexed Schedule A., together with easy extensions of them. In cases where the validity of a construction is not obvious, the reasoning by which it is justified may be required. Every candidate shall provide himself with a ruler graduated in inches and tenths of an inch, and in centimetres and millimetres, a set square, a protractor, compasses and a hard pencil. All figures should be drawn accurately. Questions may be set in which use of the set square or the protractor is forbidden.

The questions on theoretical geometry shall consist of theorems contained in the annexed Schedule B together with questions upon these theorems, easy deductions from them, and arithmetical illustrations. Any proof of a proposition shall be accepted which appears to the examiners to form part of a systematic treatment of the subject; the order in which the theorems are stated in Schedule B is not

imposed as the sequence of their treatment.

In the proof of theorems and deductions from them, the use of hypothetical constructions shall be permitted. Proofs which are only applicable to commensurable magnitudes shall be accepted.

### SCHEDULE A.

Bisection of angles and of straight lines.

Construction of perpendiculars to straight lines.

Construction of an angle equal to a given angle.

Construction of parallels to a given straight line.

Simple cases of the construction from sufficient data of triangles and quadrilaterals.

Division of straight lines into a given number of equal parts or

into parts in any given proportions.

Construction of a triangle equal in area to a given polygon.

Construction of tangents to a circle and of common tangents to two circles.

Simple cases of the construction of circles from sufficient data.

Construction of a fourth proportional to three given straight lines and a mean proportional to two given straight lines.

Construction of regular figures of 3, 4, 6 or 8 sides in or about a given circle.

Construction of a square equal in area to a given polygon.

# SCHEDULE B.

If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles; and the converse.

If two straight lines intersect, the vertically opposite angles are equal.

When a straight line cuts two other straight lines, if (i) a pair of alternate angles are equal, or (ii) a pair of corresponding angles are equal, or (iii) a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel; and the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other, each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line upon a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal, each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the corresponding intercepts on any other straight line that cuts them are also equal.

Parallelograms on the same or equal bases and of the same altitude are equal in area.

Triangles on the same or equal bases and of the same altitude are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

Illustrations and explanations of the geometrical theorems corresponding to the following algebraical identities:—

$$k (a + b + c . . .) = ka + kb + kc + . . .$$

$$(a + b)^{2} = a^{2} + 2ab + b^{2} . . .$$

$$(a - b)^{2} = a^{2} - 2ab + b^{2} . . .$$

$$(a^{2} - b^{2}) = (a + b) (a - b).$$

The square on a side of a triangle is greater than, equal to, or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse, right, or acute. The difference in the cases of inequality is twice the rectangle contained by one of the two sides and the projection on it of the other.

The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

A straight line, drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversely, the perpendicular to a chord from the centre bisects the chord.

There is one circle, and one only, which passes through three given points not in a straight line.

In equal circles (or in the same circle) (i) if two arcs subtend equal angles at the centres, they are equal; (ii) conversely, if two arcs are equal, they subtend equal angles at the centres.

In equal circles (or in the same circle) (i) if two chords are equal, they cut off equal arcs; (ii) conversely, if two arcs are equal, the chords of the arcs are equal.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and, if the line joining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semicircle is a right angle; the angle in a segment

greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are

supplementary; and the converse.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle, the rectangle contained by the parts of the one is equal to the

rectangle contained by the parts of the other.

If a straight line is drawn parallel to one side of a triangle, the other two sides are divided proportionally; and the converse.

If two triangles are equiangular, their corresponding sides are

proportional; and the converse.

If two triangles have one angle of the one equal to one angle of the other and the sides about these equal angles proportional, the triangles are similar.

The internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle, and likewise the external bisector externally.

The ratio of the areas of similar triangles is equal to the ratio of the squares on corresponding sides.

Text-book recommended:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' School Geometry.

An alternate paper will be set on the Ontario Junior Matriculation requirements in this subject.

One examination paper of two hours.

### Advanced Mathematics.

Algebra.—The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting chaps. 40 to 44 inclusive), or as in similar text-books.

One examination paper of two hours.

# Geometry.

### Constructions.

To draw the inscribed, escribed, and circumscribing circles of a triangle.

To construct triangles under given conditions.

To divide a given line externally and internally in medial section.

To construct an isosceles triangle, such that each of the base angles is twice the vertical angle.

To describe a regular pentagon.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To construct a figure equal in area to a given figure A, and similar to another figure B.

### Theorems.

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base; and conversely.

If a triangle is such that the square on one side is equal to the sum of the squares on the other two sides, the angle contained by these sides is a right angle.

The three medians of a triangle are concurrent.

Perpendiculars from the angles to the opposite sides of a triangle are concurrent.

The complements of parallegrams about the diagonal of any parallelogram are equal.

If the circumference of a circle be divided into n equal arcs:—

- (1) The points of division are the vertices of a regular polygon of n sides inscribed in the circle.
- (2) If tangents be drawn to the circle at these points, these tangents are the sides of a regular polygon of n sides circumscribed about the circle.

If OA:OB=OC2, OC is a tangent to the circle through A B C.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplemental.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle.

The sum of the rectangles contained by the opposite sides of a quadrilateral, about which a circle can be described, is equal to the rectangle contained by its diagonals.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

The areas of two similar polygons are as the squares on corresponding sides.

In a right-angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the other two sides.

If three lines be proportional, the first is to the third as the figure on the first is to a similar figure on the second.

If the straight lines joining a point to the vertices of a given polygon are divided (all externally or all internally) in the same ratio, the two points of division are the vertices of a similar polygon.

Two similar polygons may be so placed that the lines adjoining corresponding points are concurrent.

Triangles of equal altitude are as their bases.

In equal circles, angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

If P is any point on the circumscribing circle of a triangle, ABC, and PL, PM, PN are perpendicular to BC, CA, AB, respectively, LNM is a straight line.

A point P moves so that the ratio of its distance from two fixed points, Q and R, is constant; prove that the locus of P is a circle.

#### Areas.

Area of a circle.

Area of a sector of a circle.

Area of a segment of a circle.

# Use of Squared Paper.

Marking points.

Finding areas of rectilinear and curvilinear figures.

Examples of plotting loci; in particular, the ellipse, hyperbola, and parabola.

Examples of loci and envelopes.

# Deductions and Applications.

Deductions from and simple applications of the constructions and theorems given above.

Text-book:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' School Geometry.

An option will be set in Geometry on the work prescribed for Honour Matriculation in the Province of Ontario. Trigonometry.—Measurement of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I to XII; Hall and Knight's Trigonometry, Chaps. I to XII, inclusive, omitting Chap V, or as in similar text-books.

For Trigonometry and Advanced Geometry, one examination paper of three hours.

### Botany.

Text-books recommended:—Bergen and Davis, Principles of Botany, or Bergen and Caldwell, Practical Botany, or equivalent books. One examination paper of two hours.

# Chemistry.

Elementary inorganic chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. Text-book:—"Elementary Chemistry for High Schools," by Nevil Norton Evans (Educational Book Company, Limited, Toronto), Chaps. I to XVI inclusive.

One examination paper of two hours.

# Physics.

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-books recommended:—Household Physics, by C. J. Lynde (Macmillan Co. of Canada), Chaps. I to XIII inclusive; or High School Physics, by Merchant and Chant.

One examination paper of two hours.

# Physiography.

Tarr's Physical Geography or Macmillan's Complete Geography, Parts V and VI, with a review of pages 1 to 74.

One examination paper of two hours.

### SEPTEMBER EXAMINATION.

The September matriculation examination in 1921 will commence on Monday, the 19th.

### SENIOR MATRICULATION

### SENIOR MATRICULATION.

# (1) For admission to Second Year Arts-B.A. Course.

### SUBJECTS OF EXAMINATION.

- 1. Latin or Greek.
- 2. English.
- 3. History.
- 4. Latin or Greek (the one not already taken) or French or German.
- 5. Mathematics (Algebra, Geometry and Trigonometry).
- 6. Physics.

Candidates intending to take the Double Course in Arts and Medicine must take German instead of Physics.

- (2) For admission to Second Year Arts-B.Sc. Course.
- 1. Chemistry.
- 2. English.
- 3. French.
- 4. German.
- 5. Mathematics.
- 6. Physics.

This examination is held under the same regulations as apply in the case of students of the first year. It will be held only in September, commencing in 1921, on the 19th.

### FEES.

For	t1	ie fir	st exa	amination	 	 \$15.00
				examination,		

### REQUIREMENTS IN EACH SUBJECT.

### Chemistry.

Text-books:—Alex. Smith, General Chemistry; or Macpherson and Henderson, General Chemistry, as for second year.

# English.

Composition.—The examination will be designed mainly to test the candidate's ability to write English. He will be expected to have acquired a fairly clear and accurate style, to be able to arrange material in an effective fashion, and to show discrimination in the choice of words. In preparation for the examination, it is suggested that students be required to write mainly on simple, expository subjects that are within the range of their actual experience.

Carpenter's Rhetoric and English Composition (Macmillan) is recommended as a suitable text-book.

Literature.—The examination will be based on the following texts:—Chaucer's Prologue to the Canterbury Tales; Spenser's Faerie Queene, Book I, Cantos I and 2; Shakespeare's Macbeth and As You Like It; Milton's Minor Poems (L'Allegro, Il Penseroso, Lycidas and Comus); and Bunyan's Pilgrim's Progress, Part I.

Candidates will also be expected to read Long's English Literature (Ginn & Co.), Chapters I-VII, inclusive, with special emphasis on the portions most closely connected with the foregoing list of books.

### French.

### (1) For B.A. Course.

Vreeland & Koren, French Syntax and Composition (Holt); Super, Histoire de France (Holt); About, Roi des Montagnes (Heath); Erckmann-Chatrian, Waterloo (Heath); Merimée, Quatre Contes (Holt); Bruce, Récit et Contes de la Guerre de 1870 (Holt); Augier, Le Gendre de Monsieur Poirier (Heath).

# (2) For B.Sc. Course.

The requirements for Junior Matriculation as on page 54, and in addition, Bowen's First Scientific French Reader (Heath).

### German.

# (1) For B.A. Course.

Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Heyse, Die Blinden (Holt); Stern, Geschichten von deutschen Stadten (American Book Co.); Storm, In St. Jürgen (Holt).

# (2) For B.Sc. Course.

The requirements for Junior Matriculation (page 55), or the course in Beginners' German (page 147).

### Greek.

Homer, Iliad, XVIII (Platt, Blackie's Illustrated Series); Euripides, Hecuba (Upcott, Bell's Illustrated Classics); Lysias, pages 108 to 140 in Shuckburgh's Lysias, Orationes (Macmillan).

N.B.—Although the above editions are suggested, others may be used.

The examination will include a paper on grammar, composition and sight translation.

One of the following books is recommended for grammar: First Greek Grammar, Rutherford (Macmillan); Goodwin's Greek Grammar (Ginn & Co.).

# History.

Gilbert Murray, Greece (Home Univ. Library); Wheeler, Alexander The Great (Heroes of the Nations); Herodotus, Books VII and VIII (Everyman's Translation); Fowler, Rome (Home Univ. Library); Fowler, Social Life at Rome in the Age of Cicero (Macmillan); Botsford, History of Rome (Macmillan); Livy, Book XXI (Everyman's Translation); Plutarch, Lives of Pericles, Caius Gracchus, Cato the Younger and Julius Cæsar.

### Latin.

A.—Virgil, Aeneid, VIII (Tetlow, Ginn). B.—Either (1) Livy, Book VI (Laming, Blackie's Illustrated Latin Series), or (2) Pliny, Selected Letters (Prichard and Bernard, Oxford Clarendon Press), Letters 1 to 40 inclusive, omitting Letter 21.

The examination will include a paper on grammar, composition and sight translation.

The grammar recommended is:—New Latin Grammar by Sonnen-schein (Clarendon Press. N.B.—Note the exact title).

#### Mathematics

Plane and Solid Geometry.—The equivalent of Books IV, VI and XI of Euclid, with supplementary matter from Hall and Stevens' Euclid.

Algebra.—Hall and Knight's Elementary Algebra (omitting chapters 40-42 inclusive), or the same subject matter in similar text-books.

Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19; nature and use of logarithms (Bottomley's four-figure tables).

# Physics.

A general knowledge of the more important principles of elementary physics will be required.

Text-book:—Kimball, College Physics (Henry Holt & Co., New York, 1912).

The student's notebook, setting forth his own laboratory work, certified by the Instructor and Headmaster of the School, must be forwarded to the Registrar for the examiner's valuation. Unless this is done, an examination on practical physics will have to be taken.

# ADMISSION TO ADVANCED STANDING.

A student of another university applying for exemption from any subject or subjects which he has already studied is required to submit with his application a Calendar of the University in which he had previously studied, together with a complete statement of the course he has followed and a certificate of the standing gained therein.

The Faculty concerned, if otherwise satisfied, will decide what examination, if any, or what other conditions may be necessary before admitting the candidate.

# PHYSICAL EXAMINATION, VACCINATION AND HEALTH.

In order to promote as far as possible the physical welfare of the student body, every student, coming to the University for the first time, will be required to pass a physical examination to be conducted by, or under the direction of, the Director of the Department of Physical Education, or by a recognized representative.

Students of the Second Year, as well as those of all years who wish to engage in athletic activities, are also required to be physically examined.

By such examination physical defects and weaknesses may be discovered. If such defects and weaknesses are amenable to treatment by corrective gymnastics, special exercise will be prescribed and instruction provided. The students will be advised as to what forms of exercise will be likely to prove beneficial or harmful.

Students who do not present themselves for this examination (or otherwise satisfy the Director) before November 1st, will not be allowed to attend the University.

Re-examinations will be held frequently throughout the session for those students who are of low category, or who are suffering from physical disabilities.

All students entering the University for the first time are required to present a certificate, or other satisfactory evidence, of successful vaccination, failing which, they shall at once be vaccinated in a manner satisfactory to the medical examiner.

For regulations concerning the required physical work for men, see page 326.

For regulations concerning students of the Royal Victoria College, see page 330.

The University provides for medical attention for all undergraduates throughout the session.

### AGE OF ADMISSION.

Except under special circumstances, no student under the age of sixteen is admitted to the first year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the second year, and no student under the age of seventeen is admitted to the course in Law.

## OPENING AND CLOSING DATES OF SESSION, 1921-22.

The session 1921-22 will open in the Faculties of Arts, Applied Science, Medicine and Dentistry on Monday, October 3rd, 1921, and on the afternoon of that day (at 5 p.m.) the Principal will deliver the usual opening address in the Assembly Hall of the Royal Victoria College. It will end in the Faculties of Arts and Applied Science on Friday, May 12th, 1922, and in Law and Medicine about the first of June.

In the Faculty of Law the work of the session will be begun on September 19th.

In 1922-23, the session in the Faculty of Arts will be extended by two weeks.

For information regarding registration, see page 69.

### CLASSES OF STUDENTS.

There are four classes of students in the University:

- (1) Graduates—students who have previously obtained an ordinary degree at McGill, or elsewhere, and who are now pursuing courses for the Master's degree (in Arts, Applied Science or Law), or for the degree of Ph.D.
- (2) Undergraduates—students who have passed the matriculation examination and, in the case of second, third and fourth year students, all the examinations of their course in the years below that in which they are registered.
- (3) Conditioned undergraduates—those with defective entrance qualifications or who have failed in one or more of the subjects of their course in the year below that in which they are registered.
- (4) Partial students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study in the University. In order to obtain admission, such students must pass the matriculation examination in the subject, or subjects, which they wish to take, or, failing this, must be able to satisfy the Head of the Department concerned that they are qualified to proceed with the course.

# REGISTRATION AND ATTENDANCE.

### REGISTRATION.

STUDENTS IN LAW MUST REGISTER AT THE OFFICE OF THE UNIVERSITY REGISTRAR BETWEEN SEPTEMBER 12TH AND SEPTEMBER 17TH, BOTH DATES INCLUSIVE.

Between September 21st and September 30th, both dates inclusive, students coming to the University for the first time may register for the session 1921-22 at the office of the Registrar. They are requested to register early. Students previously enrolled in Medicine and those without conditions in Applied Science may also register between these dates at the Registrar's office; whilst students in Arts will register at the office of the Dean.\* On Saturday, October 1st, all those who had been in attendance before will register as follows, if they have not already done so: Arts students in the Dean's office,\* Applied Science students in the Engineering Building; and Medical and Dental students in the Office of the University Registrar. Lectures will commence on Monday, October 3rd. The complete regulations regarding registration are as under:

I. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned undergraduates, partial students, or graduate students, are required to attend at the office of the University Registrar, or such other place as he may designate, some time during the week preceding the opening day of the session, in order to furnish the information necessary for the University records, to register for the particular classes which they wish to attend, and to sign the following declaration in the matricula or register:—

"I hereby accept and submit myself to the statutes, rules, regulations and ordinances of McGill University, and of the Faculty or Faculties in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same."

2. On the day immediately before the opening of the session students who had been previously enrolled shall register for particular subjects as follows:—Arts students in the Dean's office; Medical and Law students at the office of the University Registrar, and Applied Science students in the Engineering Building. With the exception of students in Applied Science, who have conditions, they may also register during the five preceding days at the Registrar's office.

<sup>\*</sup>Women students of the Faculty of Arts are also required to enter in the Roll Book of the Royal Victoria College their names, home addresses and addresses in Montreal. (See page 285.)

3. Students who for any reason have failed to register at the times specified above will be permitted to do so at the Registrar's Office within a limited time thereafter. In the Faculties of Law and Applied Science, students previously enrolled who do not register on the regular registration day, Saturday, September 17th, or Saturday, October 1st, as the case may be, will be allowed to do so thereafter only when they have paid a fee of \$5.00 to the Bursar for late registration.

4. The Registrar is empowered to register all students whose records show that they are entitled to attend the classes applied for. All doubtful cases shall be dealt with by committees as follows: in the case of candidates registering for the first time, by a committee of the Matriculation Board; in the case of all others, by a committee

of the Faculty concerned.

5. The names of those who have registered for separate classes shall be sent by the Registrar to the Heads of Departments on registration day and subsequently, as new names are received, and only those for whom cards have been received by an instructor shall

be given credit for attendance.

6. Students desiring to make a change in their choice of studies must make application to the Registrar to do so on a regular form. This application must be approved by the Dean of the Faculty in which he is enrolled, whereupon due notice will be sent by the Registrar to all parties concerned. No change in registration will be allowed, except under special circumstances, after the fifteenth day of the session.

7. Persons who wish to pursue courses in the University without a view to qualifying for a degree shall be classified as partial students and shall not be admitted to any course (if they have not satisfied the matriculation requirements for entrance thereto), until they have obtained the permission of the Head of the Department concerned.

8. In the Faculty of Arts, where there is a choice of courses, students in attendance shall be required to choose their electives for the next year before the close of the preceding session, or (in cases where this cannot be done) not later than one week before the opening of the session.

### 2. ATTENDANCE.

I. Students are required to attend at least seven-eighths of the total number of lectures in any one course.\* Those whose unexcused absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the regular examination in that

<sup>\*</sup> Physical education is included under this regulation. (See page 328.)

course; and, in the Faculty of Applied Science, those whose unexcused absences have exceeded one-fourth of the total number of lectures in any course must repeat the work in that course.

Excuses on the ground of illness or domestic affliction shall be

dealt with only by the Deans of the respective Faculties.

The following special regulation is in force in the Faculty of

Applied Science:

It is to be clearly understood that excuses for absences in excess of one-eighth will be entertained only in cases of serious illness (which must be vouched for by a proper medical certificate), domestic affliction, and such other cases as are provided for by special regulations of the Faculty. Medical certificates covering absences must be presented at the Dean's office by the student immediately after his return to University work. Such certificates will be filed, and, if acceptable, the Dean shall give the student a statement certifying to the absences covered.

- 2. A record shall be kept by each professor or lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.
- 3. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned the student may, at the discretion of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.
- 4. The following special regulation with regard to marking the attendance of students has been adopted by the Faculties of Arts and Applied Science:—

Lectures will commence at five minutes after the hour, on the conclusion of the roll call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Professor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late." Two lates will count as one absence. Lectures end at five minutes before the hour.

In cases where it is impracticable to record late attendance, students who are not present at the commencement of these lectures will be marked absent.

# STUDENTS' EXPENSES.

### 1. BOARD AND RESIDENCE.

No college residences have as yet been erected for men students, but dormitory accommodation for about 60 is provided in Strathcona Hall, the home of the Student Christian Association of McGill University. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 348 Sherbrooke street west, Montreal, who will also make arrangements to have students who are strangers to the city met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

Information about boarding and lodging houses may be had on application to the Secretary at Strathcona Hall. A list of suitable houses is prepared about a fortnight before the opening of the session each year. Owing to frequency of change, this list is not mailed.

Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University. The expense of board and residence for the session in the Royal Victoria College is \$500. Further particulars will be furnished by the Warden.

Board and lodging can be obtained in private houses in the vicinity of the University buildings at a cost of from \$60 and upwards per month; or, separately, board at \$45 to \$55 per month, rooms from \$15 to \$20 per month.

Board is furnished in the McGill Union at low rates. The dining room, which is a special feature of the Union, will accommodate over 120 students at a time. There is also a lunch counter where meals are served à la carte.

### 2. APPROXIMATE ESTIMATE OF COST OF COURSE.

(The session extends from October 1st to May 1st.)

# Faculty of Arts (men).\*

	Minimum	Moderate
Tuition Fees	\$100	\$100
Fee for Athletics, Union, etc	10	10
Board and Lodging	400	500
Books and Apparatus	20	25
•		
	\$530	\$635

<sup>\*</sup> For estimate of expenses for women students, see page 286, and the Announcement of the Royal Victoria College.

# Faculty of Applied Science.

(The session extends from October 1st to May 1st.)

Tuition Fees	\$205	Moderate \$205
Fee for Athletics, Union, etc	10	10
Board and Lodging	400	500
Books and Instruments	40	50
	\$655	\$765

Students attending summer courses, required in certain years, for an additional period of one month, will have to spend from \$60 to \$70 extra in those particular years.

# Faculty of Medicine.

(The session extends from October 1st to May 25th.)

	Minimum	Moderate
Tuition Fees	\$200	\$200
Fee for Athletics, Union, etc		10
Board and Lodging		550
Books, Instruments, etc	150	170
	\$810	\$930

Undergraduates in Arts residing in affiliated theological colleges, with a view to a course in theology, are able to obtain board and lodging for less than the minimum shown above, and in all Faculties the expense under the head of "Books and Instruments" can be reduced by purchasing these at second-hand.

It will be noticed that in the above estimate no account is taken of personal expenses, such as cost of clothes, laundry, etc., nor yet of the caution money deposit which is made by each student at the commencement of the session. This amounts to \$5.00 in the Faculties of Arts and Law and \$10.00 in the Faculties of Medicine and Applied Science. It might be well also to reckon on at least \$20.00 to \$25.00 per annum for subscriptions of various kinds.

### LOAN FUNDS.

- 1. A fund has been established by the Applied Science Class of 1899, to be known as "The Class of 1899 Fund," for the purpose of aiding, each year, one or more students who, upon the completion of their second year work, require assistance to enable them to finish their course of study. The loans from this fund made to students will be repayable after graduation. Applications should be made through the Dean.
- 2. The George Henry Frost Fund was created by the gentleman whose name it bears for the purpose of aiding students who, when commencing the work of the second or subsequent years, in the Faculty of Applied Science, require assistance to enable them to complete their course. Loans from this fund will bear interest at three per cent. and will be repayable within three years after graduation. In making loans from this fund the academic standing of the students will be taken into account.

# SCHOLARSHIPS, FELLOWSHIPS, MEDALS AND PRIZES.

### I. SCHOLARSHIPS AND FELLOWSHIPS FOR GRADUATES.

I. THE McGILL DELTA UPSILON MEMORIAL SCHOLARSHIP.—This scholarship has been founded by the McGill Chapter of the Delta Upsilon Fraternity to perpetuate the memory of the members of that Chapter who gave their lives in the Great War.

It is open to all graduates of the University, and the following considerations will govern the award:—(a) The general scholarship of the candidate; (b) His need of financial assistance for further study; (c) The general usefulness to the community of the special branch of study he proposes to follow; (d) The likelihood that the candidate will reflect credit on the University.

The present value of the scholarship is about \$750.

2. The Allen Oliver Scholarship (in Economics and Political Science).

This scholarship has been established by Mrs. Frank Oliver, of Edmonton, Alta., in "proud and loving memory of her son, the late Allen Oliver, B.A.,\* M.C., Lieutenant 26th Battery, C.F.A., who was killed in action at the Somme on November 18th, 1916." The scholarship will be awarded annually to the student who stands highest in First Class Honours in the Department of Economics and Political Science at the final B.A. examination, and the holder is required to pursue his studies in Economics and Political Science in some university outside of Canada. The present value of the scholarship is about \$650.

The first award will be made in 1921 (class entering in 1917).

3. The Leroy Memorial Fellowship in Geology.—This fellowship was established by some friends of Captain O. E. Leroy (Arts 1895), who was killed in the Battle of Passchendaele, in October, 1917. It will be annually awarded to a worthy student who desires to proceed to post-graduate studies in Geology at McGill University. The recipient of this award may be called upon to assist in the teaching work of the Department. This Fellowship is awarded by the Head of the Department of Geology and Mineralogy in consultation with the Principal. It is of the annual value of \$700.

<sup>\*</sup>Lieut. Oliver was an Honour graduate of 1915 in the Department of Economics and Political Science.

4. THE SIR WILLIAM MACDONALD SCHOLARSHIP IN LAW.—A travelling scholarship has been established by the will of the late Sir William Macdonald, "for the purpose of enabling English-speaking Law students to take a course of studies in France," the donor "deeming it of great importance that the English-speaking members of the legal profession should be proficient in the French language."

The value of this scholarship is the income derived from the sum of \$20,000.

- 5. The A. A. Browne Memorial Fellowship.—From the proceeds of the sum of \$10,000, which was received by the Faculty from the committee of the A. A. Browne Memorial Fund, a fellowship has been established, known as the "A. A. Browne Memorial Fellowship." This fellowship is open to graduates of any recognized Medical School and is for the advancement of medical science, special preference being given to the subjects of obstetrics and gynæcology.
- 6. The James Douglas Research Fellowship.—This fellowship, founded by the late Dr. James Douglas, with an endowment of \$25,000, is awarded to promote co-ordinated research in the laboratories of pathology in or associated with the University.
- 7. THE DR. T. STERRY HUNT RESEARCH SCHOLARSHIP IN CHEMISTRY.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.
- 8. Post Graduate Scholarships Granted by the Imperial Order of the Daughters of the Empire.—Nine are offered annually—one for each Province. They are of the value of \$1,400.00, are tenable for one year and have been founded "to enable students to carry on studies at any university in the United Kingdom, in British and imperial history, the economics and government of the Empire and Dominion, or any subject vital to the interests of the Empire."

Full details may be obtained from the Secretary of the National Chapter of Canada, 238 Bloor Street East, Toronto, Ont.

# II. SCHOLARSHIPS, EXHIBITIONS AND PRIZES-GENERAL.

I. The Rhodes Scholarship.—This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The scholar must be a British subject, must be over 19 and under 25 years of age, and must have reached at least the end of his sophomore or second year in the University.

Rhodes Scholarships have been awarded by McGill as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. McLeod, B.A.; 1908, Frank

E. Hawkins, B.A.; 1911, Walter J. Pearse; 1913, W. E. Gladstone Murray, B.A.; 1915, Percy E. Corbett, M.A.; 1919, Terence William Leighton MacDermot, B.A.

Beginning with 1920 the old method of selection by the Universities of the Province in a certain order of rotation was discontinued, and scholars are now chosen by a general committee and the competition is open to candidates from the whole Province without any regard to Universities at all.

Under the new arrangement, the following McGill men have been selected:—1921, John Farthing, B.A. (1921).

2. Science Scholarships granted by Her Majesty's Commissioners for the Exhibition of 1851.—These scholarships, of the value of £200 sterling a year, are tenable for two, or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of science, such as physics, mechanics and chemistry, the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1922, in which event applications should be sent to the Registrar on or before March 1st.

This Scholarship has been awarded as follows:-

Evans, P. N., 1891; Macphail, J. A., 1892; King, R. O., 1895; Gill, J. L. W., 1897; McLean, W. B., 1899; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905; Simpson, J. C., 1907; Boyle, R. W., 1909; Shaw, A. Norman, 1911; Meldrum, W. Buell, 1912; Maass, Otto, 1913; Warneford, Frank H. S., 1915; Russell, John, 1919; Bieler, Etienne S., 1920; Saunders, Leslie Gale, B.S.A., 1921.

- 3. The P. S. Ross Exhibition of \$100.00, founded by Mr. P. D. Ross, B.A.Sc., in memory of his late father, Mr. P. S. Ross, and given through the Ottawa Valley Graduates' Society, will be awarded annually to the candidate from the Ottawa Valley for entrance to any Faculty, who obtains the highest percentage at the June matriculation examination, and attends the University during the ensuing session. Candidates must apply before July 1st.
- 4. The Ottawa Valley Graduates' Society Exhibition, value \$100. This exhibition will be awarded annually to the candidate from the Ottawa Valley for entrance to any Faculty who obtains the second

highest percentage at the June matriculation examination and attends the University during the ensuing session. Applications must be made before July 1st.

- 5. The Sidney J. Hodgson Exhibitions, founded by his father, Arthur J. Hodgson, Esq., in memory of his late son, Sidney James Hodgson, a student of the First Year in Arts, who was killed in action on September 27th, 1918, while serving in the 66th Battery of the Canadian Field Artillery. One of these exhibitions is of the value of \$125, tenable in the Faculty of Arts, and another of the value of \$300, tenable in the Faculty of Applied Science or of Medicine. They are open to pupils of the Westmount High School who have been in attendance for at least one year, and will be awarded on the result of the June matriculation examination to the two pupils who obtain the highest percentage on the subjects required for entrance to the Faculties of Arts, Applied Science or Medicine, as the case may be, and who attend the University during the ensuing session, provided, however, that they have not been awarded another exhibition of higher value.
- 6. The Chester Macnaghten Prize of the value of \$25.00 in books, established by Russell E. Macnaghten, Esq., M.A., in memory of his late uncle, will be awarded annually, through the University Literary and Debating Society, for reading in English.
- 7. Bursaries Granted by the Imperial Order of the Daughters of the Empire.—These bursaries are of the annual value of \$250.00, are tenable for four years at any university and are open to the sons and daughters of deceased and permanently disabled soldiers and sailors. One is available for each Province each year.

Full information can be obtained by writing to the Head Office of the Order for Canada, 238 Bloor Street East, Toronto, Ont.

### III. SCHOLARSHIPS IN ARTS.

### GENERAL REGULATIONS.

- No student can hold more than one scholarship at the same time.
- 2. Scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.
- 3. If in any college year there be not a sufficient number of candidates showing adequate merit, any one or more of the scholarships offered for competition may be given to more deserving candidates in another year.

- 4. A successful candidate must, in order to retain his scholarship, proceed regularly with his college course to the satisfaction of the Faculty.
- 5. The annual income of the scholarships will be paid in four instalments, viz:—In October, December, February and April, about the 20th of each month.

### ENTRANCE SCHOLARSHIPS IN ARTS.

# Scholarship Granted by the Graduates' Society of the District of Bedford.

This scholarship, of the value of \$120, will be awarded annually to a "matriculated student in Arts whose parents reside in the District of Bedford, and whose candidature has been approved by a committee of the Society."

# Narcissa Farrand (Mrs. N. Pettes) Scholarship.

This scholarship, of the value of \$300 (\$150 for two years), founded by Mr. and Mrs. H. V. Truell, of Sweet Acre, Knowlton, Que., and endowed by them with the sum of \$7,000 out of the Narcissa Farrand Fund, will be awarded annually to the candidate from the Eastern Townships who obtains the highest marks at the Arts matriculation examination in June, and who has had his domicile in the Eastern Townships for five consecutive years immediately preceding the examination. Intending competitors must apply to the Registrar before July 1st each year.

# The Trafalgar Scholarship.

This scholarship was founded in 1913 by certain friends and former pupils of Miss Grace Fairley, to signalize her long and faithful service to education in Montreal, and particularly as head of the Trafalgar Institute. It is of the value of \$135, is tenable for one year only, and will be awarded annually to the student of Trafalgar Institute who obtains the highest marks in the June matriculation examination and matriculates as an undergraduate in the Faculty of Arts.

# Scholarship for Holders of Intermediate Diplomas.

A scholarship of \$150 is offered annually in the Faculty of Arts to holders of Intermediate diplomas obtained after a course of study in Macdonald College, under the following conditions:—

(1) Candidates must apply through the Dean of the School for Teachers before May 1st.

(2) They must satisfy the entrance requirements of the Faculty of Arts and declare their intention to proceed to a First Class High School diploma following the course prescribed by the University.

The scholarship will be awarded on the academic subjects of the examination for the Intermediate diploma; but although the practice marks will not be taken into account directly, the opinion of the Macdonald College staff as to the general fitness of the applicant for a University course will be considered. In case there is no applicant from the graduating class in any year, applications from graduates of previous years will be considered on their merits.

Holders of this scholarship will be permitted to count practice teaching and post-graduate work towards the fulfilment of their agreement to teach for a period of three years in the Province of Quebec.

# The Sir William Macdonald Entrance Scholarships.

The following scholarships, endowed by the late Sir William Macdonald and open to men only, will be offered for competition in June each year:—

Five scholarships, of the value of \$150.00 each (three open only to candidates not residing on the Island of Montreal) will be awarded on the result of the matriculation examination in June.

# University Entrance Scholarships.

Three scholarships of the value of \$100 each and two of the value of \$75 each (one of each value open only to candidates not residing on Montreal Island) will be awarded on the result of the matriculation examination in June.

# Royal Victoria College Entrance Scholarships.

Two scholarships, open to women only and conditional on residence in the Royal Victoria College, are offered each year, one of the value of \$200 and one of \$100. The matriculation standing of the applicants will be taken into account in making the award.

# The Hon. Robert Jones' Scholarship.

THE HON. ROBERT JONES' SCHOLARSHIP, having a value of One Hundred and Twenty-five Dollars (\$125.00) per annum, "is granted from time to time to some poor student for the full term of study in the Faculty of Arts."

Application for this scholarship should be made through the Dean of the Faculty of Arts. In awarding the scholarship the standing of the student in the matriculation examination will be considered, and the scholarship will not be continued if the standing of the student at any time during his course proves to be unsatisfactory.

# Scholarships in Arts Awarded on the Result of the Sessional Examinations.

THE JANE REDPATH SCHOLARSHIP.—Founded by the late Mrs. Redpath, of Terrace Bank, Montreal, for the maintenance of a scholarship in Arts. It will be awarded on the result of the sessional examination of the First Year to the student who makes the highest average on the year's work. Value of scholarship, \$115.00.

THE BARBARA SCOTT SCHOLARSHIP.—Founded by the will of the late Barbara Scott to form an annual scholarship for the student "excelling in classics in the First Year." Value, \$115.00.

The James Darling McCall Scholarship.—This scholarship was founded by J. T. McCall, Esq., in memory of his son, James D. McCall, B.Sc., who was drowned shortly after the close of the war, in which he had served with distinction. This scholarship will be awarded each year to a student of the Third Year Arts who has "given proof of scholarship and ability as an honour student in the subjects of English and Philosophy." It is of the value of \$275.00.

The Charles William Snyder Memorial Scholarship.—This scholarship has been founded by L. P. Snyder, Esq., in memory of his son, Charles William Snyder, a student of the First Year Arts, who was killed in the Battle of Sanctuary Wood on June 2nd, 1916. It is of the value of \$250.00 and will be awarded annually on the result of the examination in English and Economics of the Second Year, and is subject to the condition that the holder take an honour course in English, with Economics as a minor subject, in his Third Year, or the Honour Course in English and Economics, should such be established. It is open to male students in the Faculty of Arts professing the Christian religion.

Mackenzie Scholarships, are awarded annually in the Department of Economics and Political Science. Two of these, of the value respectively of \$100 and \$50, tenable for one year, are awarded on the result of the second year examination in political economy (Economics, Course 1), but no student is eligible who has not completed the work of this year. The tenure of the scholarships is conditional upon the holders pursuing their studies in the honour work in economics and political science of the Third Year. The other two scholarships, of the value respectively of \$100 and \$50, are awarded on the results of the honour examination of the Third Year in economics and political science. The scholarships will not be awarded except on satisfactory evidence of merit; their tenure is conditional upon the holders pursuing their studies in the honour work in economics and political science of the Fourth Year.

A Fourth Year Mackenzie scholarship may be held by a student who holds another; a Third Year scholarship cannot.

THE DR. BARCLAY SCHOLARSHIP.—Founded by an anonymous donor as "a scholarship in the Classical Department of the University." Value, \$50.00.

THE HOUSTON SCHOLARSHIP.—Founded by the will of the late Thomas Houston, for the purpose of establishing a scholarship for French students studying for the Presbyterian ministry. It is open only to undergraduates in the Faculty of Arts under the above restriction and will be awarded on the result of the sessional examination without regard to year. The value of the scholarship is about \$60.00.

PRESBYTERIAN COLLEGE SCHOLARSHIPS.—The Board of Management of the Presbyterian College, offers a number of scholarships for the payment of fees of undergraduates in Arts who are registered at the Presbyterian College as in training for the study of theology with a view to the ministry and who have creditably passed the sessional examinations. For further information, application should be made to the Registrar, the Presbyterian College, Montreal.

# Scholarships in Arts Awarded on the Result of a Special Examination in September.

### SECOND YEAR SCHOLARSHIPS IN ARTS.T

Six scholarships, ranging in value from \$100 to \$150 each, will be offered for competition to students entering the second year, in September, 1921.

The subjects of examination are divided into two groups as follows:—

Group I.—Greek, Latin, French, German, English.

Group II.—Mathematics, Physics.

Candidates are required to offer two major subjects and one minor subject. The two major subjects must be selected from the same group, the minor subject from either group, the examination in the major subject being more extensive than that in the same subject presented as a minor subject. Two scholarships of \$150 each and two of \$100 each are offered to candidates taking their major subjects from Group I, and one of \$150 and one of \$100 to candidates taking their major subjects from Group II.

<sup>†</sup> Second year scholarships are open to students who have passed the first year sessional examinations, provided that not more than two sessions have elapsed since their admission to the University.

One of these scholarships is "The Charies Alexander Scholarship," for men only, and is awarded for "classics and other subjects."

The above scholarships are open to all undergraduates in Arts, whether they are taking the B.A. or the B.Sc. course.

### REQUIREMENTS IN EACH SUBJECT.

### Greek.

# (As a Major Subject.)

- I. (a) Homer, Odyssey I.
  - (b) Euripides, Hecuba.
- II. Composition and translation at sight.
- III. History:—Greek History for Schools, Edmonds (Camb. Univ. Press) down to page 173.

# (As a Minor Subject.)

The same as above, omitting I (a) and III.

### Latin.

# (As a Major Subject.)

- (a) Pliny, Letters 1 to 31 inclusive (omitting 21), (Prichard and Bernard, Clarendon Press).
  - (b) Virgil, Eclogues, omitting 2 and 3.
- II. Composition and translation at sight.
- III. Roman History:—Short History of Rome, Ferrero and Barbagallo, Vol. I, Putnam, pages 133-360.

N.B.—Before reading the above History, candidates should write to Prof. Slack for a list of corrections.

# (As a Minor Subject.)

The same as above, omitting III and either I (a) or I (b).

### French.

# (As a Major Subject.)

(a) Grammar; (b) translation at sight of an English passage into French; (c) French essay on a prescribed subject; (d) translation of passages taken from the prescribed texts; (e) a critical study of the following texts, tested by questions in the French language to be answered in French:—

Corneille, Cinna (Holt); Molière, Le Malade Imaginaire (Macmillan); Thiers, Expédition de Bonaparte en Egypte (Holt); Loti, Pêcheurs d'Islande (Rivington).

### (As a Minor Subject.)

The same as above, omitting Molière and Thiers.

### German.

# (As a Major Subject.)

(a) Grammar; (b) translation at sight from German into English, and from English into German; (c) a critical study and translation of the following texts:—

Schiller, Maria Stuart (Heath & Co.); Kleist, Michael Kohlhaas (Holt); Fulda, Talisman (Heath).

In 1922:—Hauff, Lichtenstein (Heath) in place of Kleist, Michael Kohlhaas.

# (As a Minor Subject.)

The same as above, omitting Schiller.

# English and History.

# (As a Major Subject.)

Shakspere, Richard II. (ed. Macmillan); Macaulay, History of England, Vol. I, Chap. 3 (England in 1685); Scott, Marmion.

History:—Sabatier, St. Francis of Assisi, or Symonds, J. A., A Short History of the Renaissance in Italy.

# (As a Minor Subject.)

The same as above, omitting Macaulay and Scott.

## Mathematics.

# (As a Major Subject.)

Plane Geometry.—Ordinary and advanced section courses of the First Year.

Algebra.—Hall and Knight's Algebra as in the advanced course of the First Year; also Fine's College Algebra (Ginn & Co.), pages 424 to 511.

Plane Trigonometry.—As in the advanced course of the First Year; also Carslaw's Trigonometry (Macmillan & Co.), pages 144 to 149, and chaps. 14, 15, 17, 18.

# (As a Minor Subject.)

The mathematics of the First Year ordinary course.

Physics.

(As a Major Subject.)

Duncan and Starling's Heat, Light and Sound (Macmillan).

(As a Minor Subject.)

Kimball's "College Physics" (Henry Holt & Co.).

THIRD YEAR SCHOLARSHIPS IN ARTS.\*

The following five scholarships, of the value of \$300 (\$150 per year for two years) will be open for competition to students entering the third year in September, 1921.

One for English and another language.

One for Latin or Greek and another languaget (English excepted). One for French or German and another languaget (English excepted).

Two for Mathematics and Physics.

Of the above five scholarships two are known as "Sir William Macdonald Scholarships" and are open to men only.

In addition to the above, the three following scholarships, of the value of \$150.00 each, are also offered for competition to students entering the third year:-

One for Philosophy and Psychology.

One for Chemistry and Physics.

Of the above two scholarships, one is called a "Sir William Macdonald Scholarship" and is open to men only.

One for Biology.

This scholarship shall be called "The Major Hiram Mills Scholarship." It is open to both men and women,

A bursary of \$25 will be awarded to that one of the holders of these three scholarships who is considered most deserving on entering the fourth year.

An exhibition of \$80, to be known as the Hannah Willard Lyman Exhibition, will also be awarded annually in the fourth year, to the best woman student who may have been the holder of a third year scholarship in biology or chemistry or philosophy. Should there be

The language not chosen in the first instance may be taken as

the second language.

<sup>\*</sup>Third year scholarships are open to students who have passed the second year sessional examination, provided that not more than three sessions have elapsed since their admission to the University; and also to candidates who have obtained what the Faculty may deem equivalent standing in some other university, provided that application be made before the end of the session preceding the examination.

Double course students (Arts and Applied Science or Arts and Medicine) are not eligible for these scholarships.

no sufficiently deserving candidate, this exhibition may be awarded at the beginning of the third year to a woman candidate who may fail to obtain one of the five regular scholarships offered to third year students.

In the award of third year scholarships, the second year standing of candidates, in the subjects selected, will be taken into account.

In the event of no candidate of sufficient merit presenting himself, the scholarship assigned to any group of subjects may, at the discretion of the Faculty, be awarded in another group, whether a scholarship has been already assigned to that group or not.

### REQUIREMENTS IN EACH SUBJECT.

### Greek.

Prose composition; translation at sight.

Study of the following texts:—Aeschylus, Persae; Homer, Odyssey II and III.

Greek History;—Greek History for Schools, Edmonds (Cambridge Univ. Press), page 218 to end.

### Latin.

Prose composition; translation at sight.

Study of the following texts:—(a) Pliny, Letters 1-31 inclusive, omitting 21; (b) Virgil Aeneid VII; (c) Terence Phormio.

Short History of Rome, Ferrero and Barbagallo, Vol. I, Putnam, pp. 242 to end.

N.B.—Before reading the above History, candidates should write to Prof. Slack for a list of corrections.

# English and History.

Literature.—Shakspere, Hamlet (ed. Deighton, Macmillan); Milton, Paradise Lost, Books I and II, ed. Macmillan (Macmillan); Ruskin, Sesame and Lilies, Crown of Wild Olive; Arnold, Essays in Criticism, Second Series (Macmillan's Colonial Library).

History.—The selections from Gibbon, Decline and Fall of the Roman Empire, required for History Honour students in the Fourth Year, Chaps. 1, 2, 3, 23, 50, 57, 58.

Composition.—The candidate will be required to write an essay on some subject connected with the literature or history prescribed. High marks will be given for this subject.

### French.

(a) Translation at sight from French into English, and from English into French; (b) translation of passages from the prescribed texts; (c) questions on the subject matter of the following texts, and

the lives of their authors:—Molière, Le Médecin Malgré Lui (Heath); Racine, Phèdre (Heath); Rostand, Cyrano de Bergerac (Holt); Taine, L'Ancien Régime (Heath); Hugo, Notre Dame de Paris (Ginn).

The entire examination will be held in the French language.

### German.

(a) Translation at sight from German into English, and from English into German; (b) critical study and translation of the following texts:—Goethe, Dichtung und Wahrheit, Books I, II, III (Heath); Schiller, Das Lied von der Glocke (Holt), and Wallenstein's Lager (Holt); Eichendorff, Aus dem Leben eines Traugenichts (Holt); Heine, Prose Selections (Macmillan).

### Mathematics and Physics.

Mathematics.—Differential and Integral Calculus—Lamb's Infinitesimal Calculus, pp. 1 to 250.

Analytic Geometry.—Fine and Thompson's Analytical Geometry (Macmillan & Co.); and the corresponding Chapters of C. Smith's Analytical Geometry.

Higher Trigonometry.—Carslaw's Plane Trigonometry.

Physics.—Edser's Light (Macmillan).

In addition to the above scholarships, three of the value of \$40 each will be offered as follows:—

One for Philosophy and Psychology.

One for Chemistry and Physics.

One for Biology.

# Philosophy and Psychology.

Mellone, Text-book of Logic (6th edition), chaps. 1-10 inclusive; Mill, System of Logic, Book III, 1-5 inclusive, 11-14 inclusive, 21 and 25; Pillsbury, Essentials of Psychology, or Warren, Human Psychology; Berkeley's "Three Dialogues between Hylas and Philonous" (Open Court Philosophical Classics).

# Chemistry and Physics.

Chemistry.—Modern Inorganic Chemistry (J. W. Mellor, 1912 edit.).

Subject of Essay.—"Aqueous Solution." Physics.—Draper's Heat (Blackie & Son).

# Biology.

Animal Biology.—Oswald H. Latter, The Natural History of Some Common Animals (Cambridge University Press, 1913).

Plant Biology.—Candidates for this scholarship will be expected to pursue an independent study of classification of plants during the summer months. An original collection of 75 species must be made and properly identified, and must form a basis of an understanding of the general interrelations of the larger groupings. A few lectures will be given during the latter part of the session for the benefit of those who wish to undertake this work. These will deal with the rationale of taxonomy and methods of collection and study. Advice as to the proper literature will also be given at this time.

Candidates for any of the above must make application to the Registrar before July 1st.

#### IIIa. MEDALS IN ARTS.

Gold Medals will be awarded in the B.A. Honour examinations to students who take the highest honours of the first rank in the subjects stated below, and who shall have passed creditably the ordinary examination for the degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty, on the report of the examiners:—

The Henry Chapman Gold Medal, for Classical Languages and Literature.

The Prince of Wales Gold Medal, for Mental and Moral Philosophy.

The Anne Molson Gold Medal, for Mathematics and Natural Philosophy.

The Shakespeare Gold Medal, for English Language and Literature. The Logan Gold Medal, for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal, for Biology.

The Governor-General's Gold Medal, for Modern Languages and Literature.

The Allen Oliver Gold Medal, for Economics and Political Science (founded by Mrs. Frank Oliver, in memory of her late son, Allen Oliver, B.A., M.C., Lieutenant 26th Battery, C.F.A., who was killed in action at the Somme, on November 18th, 1916).

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

If there be no candidate for any medal, or if none of the candidates fulfill the required conditions, the medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which it was intended.

#### IV. PRIZES IN ARTS.

r. The Neil Stewart Hebrew Prize.—An annual prize of \$15 is open to all undergraduates and graduates of this University, and also to graduates of any other university, who are students of theology in some college affiliated to this University. It will be awarded on the result of the sessional examination in Hebrew of the second year.

The prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the

late Neil Stewart, Esq., of Vankleek Hill.

2. Early English Text Society's Prize.—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English honour curriculum of the third and fourth years.

3. New Shakespeare Society's Prize.—This prize, the annual gift of the New Shakespeare Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakespeare:—Hamlet, Macbeth, Othello, King Lear.

- 4. Charles G. Coster Memorial Prize.—This prize, of the value of \$25.00, and intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered for competition by Mr. Colin H. Livingstone, B.A., to undergraduates (men and women) from the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island). It is awarded on the decision of the Dean of the Faculty of Arts to that student in Arts from the Maritime Provinces who shows the greatest proficiency in the examinations at the end of the session.
- 5. Annie Macintosh Prize.—The income of the sum of \$1,130 (\$425 of which was subscribed by the pupils and friends of the late Miss Annie Macintosh, and \$618.97 bequeathed by the late Miss L. G. Macintosh), will be offered as a prize or prizes, to students of the Royal Victoria College in such subject, or for such work as the Faculty may determine.

6. Penhallow Prize.—The income of the sum of \$1,100 collected by the Arts Undergraduates Society in 1911, will be assigned annually to the Department of Botany for a prize to be known as the "Pen-

hallow" prize.

- 7. Henry Chapman Prize.—This prize, of the value of \$15.00, is given in such modern languages as may be taught in the Faculty of Arts, other than English, and Hebrew shall also be included.
- 8. One Sir William Dawson Exhibition, given by the New York Graduates' Society. Value, \$60.00.
- 9. The names of those who have taken honours or certificates will be published in order of merit, with mention, in the case of students of the first and second years, of the schools in which their preliminary education has been received.

# V. SCHOLARSHIPS, EXHIBITIONS AND PRIZES IN APPLIED SCIENCE.

I.—Awarded on the result of Special Examinations.

I. Two prizes, each of \$10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to students entering the third year, for proficiency in levelling and transit work.

- 2. Messrs. Babcock & Wilcox, Limited, offer every second year, a scholarship of the value of \$200.00 per annum, tenable for two years, to the best all-round man among the Engineering students who, having completed the work of the first and second years, is about to enter the third year, and who intends to make a special study of the subject of Steam Engineering. The conditions under which this scholarship is awarded may be ascertained on application to the Dean of the Faculty.
- 3. Scholarships covering four years' tuition in the Faculty of Applied Science are awarded annually by the Canadian Pacific Railway Company. These are open for competition to apprentices and other employees of the Company under twenty-one years of age, as well as to minor sons of employees, and the award is made on the result of the June Matriculation Examination. For full particulars as to number of scholarships available, etc., application should be made to C. H. Buell, Esq., Staff Registrar and Secretary, Pension Department, C.P.R. Offices, Montreal.
- 4. The P. S. Ross, Ottawa Valley, and Sidney J. Hodgson Entrance Scholarships. For particulars, see page 77.

# II.—Awarded on results of Sessional Examinations or for special theses.

I. A British Association exhibition of \$50.00 and a prize of \$25.00 at the end of the third year, to the students who obtain the highest and the second highest aggregate marks, respectively, in the sessional examinations in strength of materials and mechanics of the third year.

2. Three prizes of \$25.00, \$15.00 and \$10.00, at the end of the second year, to the students obtaining the highest, and the second and third highest, aggregate marks, respectively, in the sessional examinations in analytic geometry, calculus and mechanics of the second year.

3. A Scott exhibition of \$50.00, founded by the Caledonian Society of Montreal, in commemoration of the centenary of Sir Walter Scott, and two prizes of \$25.00 and \$15.00, at the end of the first year to the students obtaining the highest, and the second and third highest aggregate marks, respectively, in the sessional examinations in the mathematics, descriptive geometry and physics of the first year.

4. Workshop Prize.—A prize of \$20.00 presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working

department, open to students of not more than two terms' standing in workshop practice.

- 5. A prize of \$50.00, presented by Mr. James Tighe, B.A.Sc., for research work in hydraulics.
- 6. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."
- 7. A prize of \$25.00, presented by Anglin-Norcross, Ltd., to the student obtaining the highest aggregate marks in the subject of architectural drawing in the second year of the Department of Architecture.
- 8. A prize of \$25.00, presented by Messrs. Anglin's, Ltd., to the student obtaining the highest aggregate marks in construction (Courses Nos. 24, 25, 26, 27) in the second and third years in the Department of Architecture.
- 9. The Louis Robertson Prize, founded by Mr. and Mrs. John A. Robertson, in memory of their son, John Louis Armour Robertson, who was killed in the Great War, on July 18th, 1916. To be awarded to the undergraduate student who ranks highest in Design in the final year of the course in Architecture.
- 10. The following prizes are offered for the best summer essays:-

To the students of the Electrical Engineering course, from a friend, a prize of \$25.00.

To the students of the Metallurgical Engineering course, a prize of \$25.00, presented by Milton L. Hersey, Esq., D.Sc.

To the students of the Mechanical Engineering course, a prize of \$25.00, presented by the Crosby Steam Gauge & Valve Co.

To the students of the Mining Engineering course, a prize of \$25.00, presented by J. T. McCall, Esq.

- II. There are available each year, five student prizes of twenty-five dollars each, for the best paper in each of the branches of engineering—civil, mechanical, electrical, mining and chemical—received from a student member of the Institute. The successful papers become part of the literature of the Institute and place the authors in prominent touch with the engineering profession. Further particulars from Fraser S. Keith, Secretary, 176 Mansfield Street, Montreal.
- 12. Three prizes, one of \$25.00 and the President's gold medal, one of \$15.00 and one of \$10.00, are offered annually for the best papers

submitted to the Canadian Institute of Mining and Metallurgy by student members of the Institute.

- 13. In the Department of Architecture two prizes will be offered at the opening of the session to those students of the Department submitting the best architectural drawings.
- 14. The sum of \$50.00 has been voted by the Undergraduates' Society of the Faculty of Applied Science, to be given as prizes for the best papers read before the Society during the session 1921-22.
- 15. One Sir William Dawson Exhibition, given by the New York Graduates' Society:—value, \$60.00.
- 16. Certificates of merit are given to such students as take the highest place in the sessional and degree examinations.

# III .- Awarded at the Discretion of the Faculty.

I. THE HON. ROBERT JONES' SCHOLARSHIP, having a value of One Hundred and Twenty-five Dollars (\$125.00) per annum, "is granted from time to time to some poor student for the full term of study in the Faculty of Applied Science."

Application for this scholarship should be made through the Dean of the Faculty of Applied Science. In awarding the scholarship the standing of the student in the matriculation examination will be considered, and the scholarship will not be continued if the standing of the student at any time during his course proves to be unsatisfactory.

2. The Baylis Scholarship, founded in memory of Mr. and Mrs. James Baylis, of Montreal, and having an annual value of \$100.00, is awarded to some student who is in need of financial assistance to complete his course on entering the second year of the Faculty. The scholarship will be continued during the third and fourth years, if the student's standing continues to be satisfactory.

Applications should be made through the Dean of the Faculty of Applied Science.

- 3. Three research and teaching fellowships, of the value of \$500 each, have been established in the Mining Department—one endowed in memory of the late Sir William Dawson, one endowed by the late Dr. James Douglas, and a third supported by graduates in Mining in the name of the late Dr. B. J. Harrington. All three fellowships are awarded annually if suitable candidates offer.
- 4. A research and teaching fellowship of the value of \$80.00 per month during the University session is offered to students graduating in the Metallurgical Department. The student holding this fellowship is expected to spend two-thirds of his time in research and study for the M.Sc. degree, and one-third in teaching and other work for the Department.

5. The late Dr. James Douglas, who was a member of the Board of Governors, provided during his lifetime for twelve, or more, tutorial bursaries in the Faculty of Applied Science. In assigning these bursaries account will be taken of the circumstances of the applicants as well as of their academic standing.

These bursaries have a value of \$100.00 per annum, and carry the obligation of giving tutorial instruction equivalent to one evening a week, to the satisfaction of the Faculty Committee. Students in the third and fourth years of Applied Science only are eligible.

#### VI. MEDALS IN APPLIED SCIENCE.

- I. The Governor-General's silver medal (the gift of His Excellency, the Duke of Devonshire) will be awarded for graduate research work.
- 2. A British Association medal is open for competition to students of the graduating class in each of the seven courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations. The British Association medals and exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.
- 3. A gold medal and three prizes, offered by the Canadian Institute of Mining and Metallurgy. For further particulars, see pages 178, 233 and 236.
- 4. Honours.—On graduation, honours will be awarded for high standing in professional subjects.

#### VII. SCHOLARSHIPS IN MEDICINE.

- 1. The P. S. Ross, Ottawa Valley, and Sidney J. Hodgson Scholarships. For particulars, see page 77.
- 2. The Walter J. Hoare Memorial Scholarship. Founded by Dr. Charles W. Hoare, a graduate of McGill University, in memory of his son, Walter J. Hoare, who was killed in the Great War. It is limited to pupils of the Windsor Collegiate Institute, Ontario, is tenable only in the Faculty of Medicine of McGill University, and is awarded on the result of the June Matriculation Examination each year.
- 3. The John McCrae Memorial Scholarship. Founded by the Canadian Fairbanks-Morse Company, and H. J. Fuller, Esq., with an endowment of \$11,000, in memory of the late Lieut.-Col. John McCrae, B.A., M.D., who died while on active service at Boulogne, France, January 28th, 1918. The conditions of the award have not yet been determined.

#### VIII. MEDALS IN MEDICINE.

1. The Holmes Gold Medal, founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the medical curriculum.

The student who gains the Holmes Medal has the option of exchanging it for a bronze medal and the money equivalent of the gold medal.

- 2. The Sutherland Gold Medal, founded in 1878 by the late Mrs. Sutherland, in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, is awarded for the best examination in general and medical chemistry, together with a creditable examination in the primary branches. The examination is held at the end of the third year.
- 3. The Wood Gold Medal, founded by Casey A. Wood, M.D., is awarded to the student of the graduating class who receives the highest aggregate number of marks in the clinical branches of the final year. The winner of the Holmes Medal and the winner of the Final Prize are not permitted to compete for this medal.

#### IX. PRIZES IN MEDICINE.

- I. The Final Prize.—A prize in books (or a microscope of equivalent value), awarded for the best examination, written and oral, in the final branches. The Holmes' medalist is not permitted to compete for this prize.
- 2. The Fourth Year Prize.—A prize in books, awarded for the best examination, written and oral, in all the branches of the fourth year course.
- 3. The Joseph Hils Prize.—(Founded by the late Dr. Joseph Hils, of Woonsocket, R.I.)—A prize in books, awarded to the student who obtains the highest number of marks for a special examination in materia medica and therapeutics.
- 4. The Third Year Prize.—A prize in books, awarded for the best examination, written and oral, in the branches of the third year.
- 5. The Joseph Morley Drake, M.D., Prize.—(Founded by the late Joseph Morley Drake, M.D.)—A microscope, to be awarded to the student of the third year who obtains the highest number of marks for the examinations in pathology and bacteriology.
- 6. The Second Year Prize.—A prize in books for the best examination in all the branches of the second year course.
- 7. The First Year Prize.—A prize in books for the best examination in all the branches of the first year course.

#### X. EXHIBITIONS AND PRIZES IN LAW.

I. An exhibition, of the value of \$50.00 per annum—to be known as the Alexander Morris Exhibition—has been founded in memory of the late Hon. Alexander Morris, M.A., D.C.L., of Toronto, Ont., and will be awarded to the student who obtains the highest standing in the second year.

2. Various money prizes (among the number being a prize of \$15.00, given by the Junior Bar Association of the Province of Quebec, to the student of the final year who takes the highest standing in civil procedure), are awarded to the students of each year who obtain the highest distinction at the examination held at the close of the session. No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

3. The Montreal Bar Prize, value \$50.00, is awarded by the Montreal Bar Association for the highest standing in Commercial Law.

4. One Sir William Dawson Exhibition, given by the New York Graduates' Society:—value, \$60.00.

#### XI. MEDALS IN LAW.

I. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the final examination, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.

#### XII. MEDALS IN DENTISTRY.

The F. A. Stevenson Gold Medal, founded by Dr. F. A. Stevenson, of Montreal, is awarded to the student in the final year who stands first in the science and practice of Dentistry. The standing will be determined not only by the written and practical examination at the end of the year, but by the general work of the student during the whole year.

#### XIII. PRIZES IN DENTISTRY.

Final Year Prize:—A prize in books will be awarded to the final year student who stands second in the class. The standing will be determined in a manner similar to that followed in the awarding of the gold medal.

Third Year Prizes:—Two prizes in books will be awarded to third year students in the science and practice of Dentistry. The method of determining the winners of these prizes will be similar to that adopted in awarding the prizes in the final year.

For medals and prizes in the Faculty of Agriculture, see Macdonald College announcement.

## FEES.

#### GENERAL REGULATIONS.

I. Fees are due and payable to the Bursar as follows:—
Students in Arts (men and women), Commerce
excepted......Oct. 3rd and

		exceptedOct.	3rd and	4th
"	"	Law and Commerce "	5th	
66	н	Medicine "	6th and	7th
66	"	Applied Science "	10th and	11th
**	"	Dentistry, Pharmacy, School for Grad-		

uate Nurses, Social Service and the School of Physical Education.....Oct. 12th

Students who pay by instalments will be required to pay the second instalment on or before February 1st.

The registration ticket must be shown to the Bursar at the time of the first payment.

- 2. Immediately after October 20th, or February 5th (in the case of students who pay by instalments), the Bursar will send to the Deans of the several Faculties a list of the registered students who have not paid their fees, on receipt of which the Dean shall cause their names to be struck from the registers of attendance, and such students cannot be re-admitted to any class except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.
- 3. Students registering after October 20th shall pay their fees at the time of registration, failing which they become subject to the provisions of regulation 2.
- 4. No fees will be refunded to partial students under any circumstances whatever.

#### MATRICULATION EXAMINATION FEES.

See page 48.

#### FEES IN ARTS.

# (For Regulations re payment, see above.)

Sessional fee for the undergraduate course in Arts....... \$100.00 (This includes fee for library, gymnasium and graduation.)

# By instalments:—

First instalment, if	paid before October 10th	\$51.00
Second instalment,	if paid before February 1st	51.00

Sessional fee for the undergraduate course in School of Commerce	\$150.00
By instalments:—	
First instalment, if paid before October 10th	\$ 77.00 77.00

At the request of the students themselves and by the authority of Corporation, an additional fee of \$12.00 will be exacted from all men undergraduates and conditioned undergraduates, for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily and athletics. Women students pay an additional fee of \$3.00 for athletics, and \$2.50 for the Royal Victoria College Undergraduates' Society.

# Fees for Laboratory Courses.

Fees for supplies, as detailed below, will include all laboratory materials, reagents, and the use of instruments, and will cover ordinary wear and tear of instruments and apparatus, but they will not cover losses through waste, neglect, or breakage. The charges under this head will be deducted from the students' caution money at the end of the session.

General Chemistry (1)	
General Chemistry (1)	\$ 5.00
Organic Chemistry (2)	5.00
imalytical Chemistry (3)	10.00
organic Chemistry, advanced (5)	15.00
- my stear Chemistry, advanced (7)	10.00
guantitative Analysis, advanced (8)	10.00
Biological Chemistry (10)	
biological Chemistry, advanced (11)	5.00
Food Chemistry Laboratory.	5.00
Physics (per session)	10.00
Botany (for sessional courses)	5.00
Botany (for sessional courses).	5.00
Botany (for term courses)	2.50
Zoology (for sessional courses)	5.00
Zoology (for term courses)	2.50
	•

# Fees for Partial Students in Arts-(First and Second Years).

\$25.00 per session for one courset and \$15.00 for one half-courset of lectures, including the use of the library; \$18.00 per session for each

<sup>†</sup> The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week; a "half-course," if occupying less than three hours per week.

additional course; \$12.00 per session for each additional half-course. In addition there will be a fee of \$3.00 for athletics.

Fees for Partial Students in Arts—(Third and Fourth Years.)—\$30.00 per session for one course† and \$18.00 for one half-course† or lectures, including the use of the library; \$24.00 per session for each additional course; \$15.00 per session for each additional half-course. In addition there will be a fee of \$3.00 for athletics.

Fees for Partial Students in Commerce—(All Years).—\$34.00 per session for one courset and \$21.00 for a half-courset of lectures, including the use of the library; \$27.00 per session for each additional course and \$21.00 for each additional half-course. In addition there will be a fee of \$3.00 for athletics.

Partial students taking the full curriculum in any one year pay the same fees as undergraduates in that year.

For fees payable by students taking the double course in Arts and Applied Science, see page 99; and for the fees payable by those in the double course in Arts and Medicine, see page 100.

Graduates in Arts of this University are allowed, on payment of one-half of the usual fees, to attend all lectures in the undergraduate course, except those for which a special fee is exigible. Graduates of other universities attending full courses in affiliated theological colleges are given the like privilege.

For fees for Extension Courses, see pages 300 to 325.

# Special fees:-

Supplemental examination, taken at the regular date fixed	
by the Faculty	\$ 5.00
Each subsequent supplemental examination in the same subject	10.00
Supplemental examination, when granted at any other time	
than the regular date fixed by the Faculty, for each exam-	
ination period	10.00

All fees for supplemental examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

Caution Money.—Every student is required to deposit with the Bursar the sum of \$10.00 as caution money, to cover damages done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

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FEES IN APPLIED SCIENCE.
(For Regulations re payment, see page 96.)
Sessional fee for the undergraduate course
First instalment, if paid before October 10th
Second instalment, if paid before February 1st 105.00
Students taking the summer schools in September are required to pay the sum of \$35.00 (including Caution Money Deposit), which will be placed to their credit on the fee for the session.
At the request of the students themselves, and by authority of
Corporation, an additional fee of \$12.00 will be exacted from all
undergraduates and conditioned undergraduates for the support of
the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily and athletics.

Graduates of this Faculty taking an additional undergraduate course will pay one-half of the undergraduate fee.

Students taking the six-year double course in Arts and Applied Science shall pay full fees in Arts for the first three years of their course and the following fees in Applied Science:—

Sessional fee for second and third years of double course (including the summer school)	\$ 50.00
course	205.00
By instalments:—	
First instalment, if paid before October 10th	\$105.00 105.00

The fees for partial students are:—\$4.00 for library, \$3.00 for athletics, \$1.00 for the Undergraduates' Society, and a fee at the rate of \$7.00 for an hour a week of instruction during the academic year, but the maximum fee shall in no case exceed the full undergraduate fee.

Caution Money.—Every student is required to deposit with the Bursar the sum of \$10.00, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

For a regular supplemental examination, the fee is \$5.00, for each subsequent supplemental examination in the same subject \$10.00, for a special supplemental examination \$10.00. These fees must be paid to the Bursar of the University and receipt for the same shown to the Examination Committee not later than the day before the examination.

#### FEES IN MEDICINE.

(For Regulations re payment, see page 96.)

Sessional fee for the undergraduate course  By instalments:—	\$200.00
First instalment, if paid before October 10th	\$102.00
Second instalment, if paid before February 1st	102.00
Fee for athletics, Union, etc.*	12.00
Caution money (deposit)†	GO.01
Graduation fee for the degree of M.D., C.M.‡	\$ 30.00
Double course students in Arts and Medicine, qualifying degree B.A. or B.Sc. and M.D., shall pay full fees in Arts years and in Medicine for six. They shall also pay \$30.0 graduation fee in the Faculty of Arts, as well as in Medicine.	for two
Sessional fee for students repeating a session	\$100.00

These students are also required to pay, in addition, \$12.00 for athletics, etc.,\* the hospital fees exacted in the year to which they are admitted, and to make the usual caution money deposit of \$10.00.

there for the courses to be taken......\$100.00

Repeating students must also pay \$10.00 for athletics, etc., and make the usual caution money deposit of \$10.00. Fee for students from other colleges who have paid full fees

An ad cundem fee of \$10.00 will be charged students entering from another university in any year above the first.

Partial students will be admitted on payment of special fees.

Fee for a supplemental examination	\$	5.00
Fee for the course in Public Health and diploma	10	00.00

<sup>\*</sup>At the request of the students themselves and by authority of Corporation, this additional fee of \$12.00 is exacted from all men undergraduates and conditioned undergraduates for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the McGill Daily, and athletics.

<sup>†</sup> The caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any), will be returned at the close of the session.

<sup>‡</sup> When the degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

#### FEES IN DENTISTRY.

Students in Dentistry pay the following fees:-

Sessional fee	\$200.00
. By instalments:—	
First instalment, if paid on or before October 10th.  Second instalment, if paid on or before February 1st  Fee for athletics, the Union, etc.*.  Caution money deposit†	\$102.00 102.00 12.00 10.00
Graduation fee for the degree of D.D.S.*	\$ 30.00
FEES IN PHARMACY.	
Registration fee Fee for athletics. Course in Junior Chemistry and Physics. Course in Senior Chemistry.	\$ 5.00 3.00 50.00 50.00
Course in Junior Materia Medica and Pharmacy	50.00
Course in Senior Materia Medica and Pharmacy	50.00 50.00
Course in Analytical Chemistry	50.00
Course in Botany	25.00
Graduate Diploma  Supplemental Examination, each subject	15.00

Certain fees are payable to the Pharmaceutical Association of the Province of Quebec for registration, examinations, and for the licentiate in pharmacy (see announcement of Department of Pharmacy).

The fee of \$12.00 for the Union, McGill Daily, etc., etc., is optional for students in Pharmacy, but they are required to pay the athletics fee of three dollars.

The sum of \$5.00 is collected from all students of Pharmacy at the time of registration as "caution money," to cover breakages in the laboratories or lecture rooms. The balance will be refunded at the end of the session.

The University supplies all reagents and apparatus in the various laboratories. Charge is made for breakages only.

Partial students will be admitted to one or more courses on payment of special fees.

<sup>\*</sup> See foot note on preceding page.

<sup>†</sup> See foot note on preceding page.

<sup>‡</sup> See foot note on preceding page.

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#### FEES IN LAW.

# (For Regulations re payment, see page 96.)

(Por Regulations re payment, see page 90.)	
Sessional fee	\$150.00
By instalments:—	
First instalment, if paid on or before October 10th	\$ 77.00
Second instalment, if paid on or before February 1st	77.00
Fee for athletics, the Union, etc.*	10.00
Graduation fee‡	12.50
Fee for a Regular Supplemental Examination	5.00
Fees for partial students:—	
Registration fee	\$ 5.00
For course in Roman Law	40.00
For each of the following courses: successions, criminal law,	
commercial law, obligations, civil procedure	30.00
For each of the shorter courses	20.00
Athletics fee	3.00

Caution Money.—Every student is required to deposit with the Bursar the sum of \$5.00, as caution money, to cover damage done to furniture, loss of books, etc. This amount, less deductions (if any), will be returned at the close of the session.

#### FEES IN THE GRADUATE SCHOOL.

For the resident course leading to the degree of M.A., M.Sc. or LL.M.	\$40.00
Registration fee for the non-resident courses for M.A. or	
M.Sc	15.00
Annual registration fee thereafter for these courses	5.00
For each year of the course leading to the degree of Ph.D	40.00
Graduation fee for M.A., M.Sc., or LL.M	20.00
" " (In absentia)	40.00
" " Ph.D	30.00
Fee for the degree of D.Sc	80.00
" " D.Litt	80.00
" " D.C.L	80.00

<sup>\*</sup>At the request of the students themselves and by authority of Corporation, this additional fee of \$12.00 is exacted from all men undergraduates and conditioned undergraduates for the support of the Literary Society, the Union, the McGill Daily, and athletics.

‡ When the degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially

exempted by the Faculty.

FEES IO3

The examination and graduation fee is payable when the candidate presents himself for examination and is not returnable if he is unsuccessful. No thesis can be accepted unless it is accompanied by a receipt from the Bursar for this fee. If, however, a candidate for the degree of M.A. or M.Sc. fails, he may present himself in a subsequent year without further payment of fees. A candidate for the degree of Ph.D. D.Sc. or D.Litt., in case of failure, may present himself in a subsequent year upon payment of an additional sum amounting to one-half of the usual fee for this degree.

Lecturers, tutors and demonstrators in the University who are proceeding to the degree of Master of Arts, Master of Science, or Doctor of Philosophy, shall, so long as they remain members of the teaching staff, be exempt from the tuition fee, but will be required to pay the fee for graduation in every case. In the event of their leaving the staff after one year of the course, they are required to pay a tuition fee of \$20.00 in the M.A. or M.Sc. course and the prescribed fee in the Ph.D. course.

No fee shall be charged for the degree of LL.D., granted honoris causa.

#### FEES IN MUSIC.

Regular students, per session	\$175.00
By instalments:—	
First instalment, if paid on or before October 10th	\$ 89.00
Second instalment, if paid on or before February 1st	89.00
(This sum will also cover the fees for the diploma or degree	
examination at the end of each year.)	
Senior partial students, per term of 11 weeks	40.00
Junior partial students, per term of 11 weeks	33.00
Examination and graduation fees for Mus. Bac., when the	
course is taken extra-murally; for each examination	
(first, second or third)	20.00
For the diploma	20.00
Examination and graduation fee for Mus. Doc	100.00

The fee for the degree of Mus. Doc. is payable in two instalments. Fifty dollars must be paid when the candidate submits his exercise. If the exercise is not approved, he may in a subsequent year submit another exercise upon payment of \$25.00. The second instalment of \$50.00 must be paid before the subsequent examination. If the candidate be unsuccessful, he may in a subsequent year present himself again for examination upon payment of \$25.00.

Information regarding fees to be paid by students for class work and by occasional students, as well as regarding fee for certificates and examinations, when these are not covered by the regular fee, will be found in the special syllabus issued by the Conservatorium of Music

FEES	ΙN	THE	SOCIAL	SERVICE	DEPARTMENT.
LILIO	114	LILL	200111	DERVIOR	D DI III II II II II II II I

For Diploma students	\$ 70.00		
By instalments:—	•		
First instalment, if paid on or before October 10th  Second instalment, if paid on or before February 1st	\$36.00 36.00		
Partial students:-			
For a single sessional course	\$ 7.50 5.00		
For course No. 7	10.00		
For the Extension Course	5.00		
FEES IN THE DEPARTMENT OF PHYSICAL EDUCATION			
Gymnasium for partial students (optional)	\$ 5.00 10.00		
IN THE SCHOOL OF PHYSICAL EDUCATION.			
Sessional fee	\$150.00		
By instalments:—	¢ == 00		
First instalment, if paid on or before October 10th  Second instalment, if paid on or before February 1st	\$ 77.00 77.00		
Fee for athletics, etc	3.00		
Caution money deposit	5.00		
FEES IN THE SCHOOL FOR GRADUATE NURSES.			
Sessional fee for either certificate course	\$100.00		
By instalments:—			
First instalment, if paid on or before October 10th  Second instalment, if paid on or before February 1st  For partial students the fee is \$7.50 for a full course of one lecture a week during the winter; \$5.00 for a half-term course, \$10.00 for a double course (two lectures weekly).	\$ 51.00 51.00		
Fee for athletics, etc	3.00 5.00		
MISCELLANEOUS FEES.			
Certificate of standing (general)	\$ 1.00		
All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee.			

No certificates are given for attendance on lectures unless the corresponding examinations have been passed.

# MORALS AND DISCIPLINE.

I. University discipline shall be exercised by the several Faculties, and by the Committee on Morals and Discipline, subject in the cases hereinafter mentioned to revision or confirmation by Corporation.

2. Subject to the provisions of the following sections, each Faculty shall be entitled to exercise University discipline over its own students.

3. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be dealt with by a standing committee of Corporation, to be known as the Committee on Morals and Discipline. The Committee shall have power to summon as assessors the President and Vice-President of the Students' Council.

4. All such cases of discipline as are referred to in sub-section 3 shall be reported to the Principal, or, in his absence, to the Vice-Principal, or, in the absence of both, to the senior Dean present in the city. If the Principal, or, as the case may be, the Vice-Principal or the Dean, deems action necessary, the matter shall be reported to the Committee on Morals and Discipline. Corporation shall also have the power to report such matters to the said Committee.

5. When sentence of expulsion, or of suspension for more than three months, has been pronounced or recommended by a Faculty, or by the Committee on Morals and Discipline, the Corporation may entertain an appeal, which shall be final.

6. "University discipline" shall mean any appropriate method of exercising authority over students, and shall, but without prejudice to the foregoing generality, include the power of expulsion, suspension, disqualifying from competing for scholarships, exhibitions, medals, prizes or honours, imposing fines, not exceeding \$25.00, on any student, levying assessments for damage done, reporting to parents or guardians and admonition.

7. Any student found guilty of immoral, dishonest, disorderly or improper conduct, or of wrongfully causing damage to person or

property, shall be liable to University discipline.

The following resolution should be noted here: "The Corporation of the University viewing with marked disfavour the organized kidnapping or other proceedings of a violent and objectionable character practised by the students of the First and Second Years at the beginning of the Session, hereby requires the student body to discontinue such practices under severe penalties."

- 8. If on an occasion of general disorder on the part of a year, class, or group of students, damage be done to University property, or acts committed meriting discipline, and the individuals who have done such damage, or committed such acts, have not been discovered, an assessment to cover the damage may be laid, or a fine imposed, or both, on all the members of such year, class or group.
- 9. While in College, or in the college grounds, students shall conduct themselves in the same orderly manner as in the class-rooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any professor observing improper conduct on the part of the student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within, the walls of the college, every student is required to maintain a good moral character.

# COLLEGE GROUNDS AND ATHLETICS.

I. The management of the college grounds and of out-door athletics and sports is under the control of the Committee on Physical Education. This Committee is responsible for the general maintenance of all University grounds, and retains the ultimate authority and power of supervision in all matters affecting athletics in the University. All matters which may in any way affect athletics must be referred to this Committee, and its approval must be obtained before any departure is made from the authorized routine.

All students entering the University for the first time and all others desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination to be held under the direction of the Director of Physical Education during the month of October. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The managers and captains of clubs, or other responsible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All clubs must submit their regulations, rules, and by-laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the grounds as they require, and for any special privileges.

Clubs must not engage in matches with outside clubs, except with the approval of the Committee.

During the session, and including the Christmas holidays, all teams and individual students desiring to participate in outside athletics\* must first obtain a sanction from the Athletic Association, such sanction to be approved by the Committee on Physical Education.

Students who participate in outside athletics without having received such sanction may be suspended from the University by the Committee on Physical Education, if the consent of the Principal has been given, until Corporation shall meet to deal with the matter.

The Athletic Association must submit its programme for each year for the approval of the Committee.

<sup>\*</sup>Outside athletics is interpreted to mean those athletics over which the Athletic Association of the University or the Canadian Intercollegiate Athletic Union does not have control.

All students in good standing who are taking a course of study held to be sufficient by a special committee of the Faculty in which they are enrolled will be allowed to take part in athletics, subject, however, to the general regulation regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several professors and lecturers, shall be considered as sufficient ground to disqualify a student from engaging in athletic contests.

All students of the University are required to pay a fee of three dollars (\$3.00) for the use of the grounds (this is included in the general fee of \$12.00 paid by undergraduates). The amount so paid is handed over to the Executive of the Students' Council, and is by this body expended in the interest of college athletics, under the general direction of the Committee on Physical Education.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the third Friday of October in each year. The day is observed as a holiday.

Such persons as are entitled to use the grounds shall be provided with tickets, renewable each year. Those entitled to tickets are the members of the University and prominent benefactors, and the families of Governors and Professors.

#### UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the immediate supervision of the University Athletic Association, which in turn is responsible to the "Committee on Physical Education." The Executive of the Athletic Association consists of the presidents of the various clubs of the Association, twelve in number.

The Track Club is entrusted with the regulation and encouragement of "track and field athletics"; the management of the Interclass sports and of the annual University sports.

The Rugby Football Club is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches is played annually for the "Wood Cup."

The Hockey and Skating Club is represented by a Senior Team in the Intercollegiate and City League and by Intermediate and Junior Teams in the City League. A series of Inter-class games is played annually for the "Capper-Porter Trophy."

The Basketball Club is represented by the Senior Teams in the Intercollegiate and City Leagues and by Intermediate and Junior Teams in the City League. A series of Inter-class games is played annually.

The Boxing, Wrestling and Fencing Club, in addition to holding an annual "Assault at Arms," is represented in the Intercollegiate

competition.

The remaining clubs, most of which are represented in Intercollegiate Unions, are: Harriers, Association Football, English Rugby, Ski-ing, Gymnastics, Tennis, Swimming, Water Polo and Indoor Baseball.

# PHYSICAL EDUCATION.

For particulars, see page 326.

# ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling below the knee, with round sleeve cut above elbow.

Bachelor of Arts.—Black stuff gown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood, black silk, lined with yellow silk and edged with white fur.

Bachelor of Science in Agriculture.—The same gown as Bachelors of Arts; hood, black silk, lined with dark green silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood, black silk, lined with French grey silk and edged with white fur.

Bachelor of Laws.—The same gown as Bachelors of Arts; hood, black silk, lined with scarlet silk and edged with white fur.

Bachelor of Architecture.—The same gown as Bachelors of Arts; hood, black silk, lined with white silk and edged with white fur.

Bachelor of Music.—The same gown as Bachelors of Arts; hood, black silk, lined with pale mauve silk and edged with white fur.

Bachelor of Commerce.—The same gown as Bachelors of Arts; hood, black silk lined with purple silk and edged with white fur.

Master of Arts.—Black gown of stuff or silk, falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk

Master of Science.—The same gown as Masters of Arts; hood, black silk, lined with vellow silk.

Master of Laws.—The same gown as Masters of Arts; hood, black silk, lined with scarlet silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor of Dental Surgery.—The same gown as Masters of Arts; hood, searlet cloth, lined with pink silk.

Doctor of Laws.-The same gown as Masters of Arts; hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with yellow silk.

Doctor of Civil Law.—The same gown as Masters of Arts; hood, scarlet cloth, lined with French grey silk.

Doctor of Music.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale mauve silk.

Doctor of Philosophy.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale green silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature. Doctors of Science, Doctors of Philosophy and Doctors of Music shall be entitled to wear for full dress a robe of scarlet cloth (similar in pattern to that of the Cambridge LL.D.), faced with silk of the same colour as the lining of their respective hoods.

All hoods shall be in pattern similar to that of the Masters of Arts of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, Doctors of Science, Doctors of Philosophy and Doctors of Music shall wear for full dress a black velvet hat with gold cord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for inspection in the office of the Registrar.

For the information of graduates in Great Britain, it may be stated that the gowns and hoods for the various degrees specified above can be purchased from Messrs. Ede, Son & Ravencroft, 93 and 94 Chancery Lane, London, W.C. 2.

# FACULTY OF ARTS.

#### COURSES FOR THE DEGREE OF B.A.

Students may enter the Undergraduate Course by passing either the Junior or the Senior Matriculation Examination. In the former case, in order to obtain the degree of B.A. or B.Sc., they are required in the latter, for three. No course or courses can be counted towards to attend regularly the prescribed courses of lectures for four years; a degree or diploma in the Faculty of Arts except such as have been taken and passed after matriculation requirements have been satisfied and according to the regulations governing the various years of the Undergraduate Course. Undergraduates are arranged in years, from first to fourth, according to their academic standing. The respective conditions of passing into the last three years of the course are stated on page 124.

An undergraduate may proceed to the degree of B.A. by taking either the Ordinary Course or some one of the Honour Courses prescribed.

I. ORDINARY COURSE FOR THE DEGREE OF B.A.

### First Year.

Greek 1 or 2, or Latin 1.

English 1 and 2.

History 1.

Mathematics 1 or 2.

Latin I, or Greek I or 2, or French I, or German I (a) or 2. Physics I.

Details of the work in each subject are given on pages 127 to 156. French cannot be taken as a qualifying option in the first year, except by students who have passed the matriculation examination in that subject, or, failing this, are able to satisfy the Head of the Department that they are qualified to proceed with the course.

German may be taken instead of trigonometry, in addition to two other foreign languages, by students who intend to read for honours in modern languages or English. Greek may be taken instead of trigonometry, in addition to two other foreign languages, by students who intend to read for classical honours, or by those who intend to study theology. This option will, however, be granted only on the recommendation of the departments concerned.

Application to take additional courses must be made to the Dean at the beginning of the session.

Advanced Courses.—A student qualified to take work of a more advanced character than the ordinary course of the first year

in any subject, shall, with the consent of the b.A. Advisory Committee, take such advanced work in that subject as the department concerned may recommend. Students taking advanced courses may be excused from the corresponding ordinary courses on the recommendation of the department.

Commercial Course.—An outline of the first year course for the degree of Bachelor of Commerce will be found on page 165.

#### Second Year.

Compulsory.

# Optional Courses.

From the following subjects any three, or three and a half, iu wholes or halves must be selected. Two and a half courses must be taken from Group II in order to qualify for the B.A. degree, but not more than two full courses can be selected from this Group in the Second Year. The subjects of Group II are not compulsory for students intending to take honours in the Third and Fourth Years. The asterisk denotes a half course.

GROUP I.		GROUP II.		
Courses	Prerequisite	Courses	Prerequisite	
Economics *1. English 4. French 3. German 4. Greek 3 or 4. History *2. Latin 2.	1 and 2 1 1 or 2 1 or 2	Chemistry 1 Geology 1 Physics 2 or 3 Zoology $\begin{cases} *2 \\ *6 \end{cases}$	1	
Mathematics 3				
Philosophy   *1 any two *3	-		•••••	
Semitic Languages 2				

An exemption from any one of the subjects specified above, except English composition, may be granted to honour students in mathematics who take both the ordinary and advanced course in mathematics, but to no others.

Commercial Course.—An outline of the second year course for the degree of Bachelor of Commerce will be found on page 165.

## Third and Fourth Years.

Four courses are to be selected in each year. Of the eight, six must be chosen from Group I, and of these six, five must be chosen in one department, or from courses which are indicated as allied to that department, but not less than three and not more than four courses can be taken in any one department and not more than three courses in any one department in the same year. In the whole B.A. course, at least two and a half courses are to be taken from Group II. No course can be selected unless the prerequisite courses, if any, have already been taken. An asterisk denotes a half course.

GROUP I.

DEPARTMENT	Courses Offered	Prerequisines.	Allied Courses.
Classics	∫Latin, 3, 5 (Greek, 5, 7	Greek 3 or 4	Any one full course in any other depart- ment of Group I.
Economics and   Political_Science	2 3 *4,*5,*6,*7,*8,)		English Literature, but not more than onefull course; His- tory, but not more than one full course.
Education	*1. *2		Any ancient or mo-
English	*13, *15, *19, *14	***	dern language, but not more than two full courses; His- tory, but not more than one full course.
†History	*2, *5, *7, 9	1	Philosophy or Economics and Political Science, but not more than one full course.  Economics and Political Science, but not more than one full course; English, but not more than one full course.

<sup>†</sup> Subject to revised announcement of Department to be made in 1921-22.

GROUP I.—Continued

DEPARTMENT.	Courses Offered	PREREQUISITES.	Allied Courses.
Mathematics	$\begin{cases} 3 & \dots & \\ 4, & 6, & (*5 \text{ and } \\ 11) & \dots & \dots \end{cases}$	1 or 2	Any two full courses in any department of Group I.
Modern Languages	French 7, 8, 9, 11 German 6, 7, 8.	French 3 German 4	Any language or languages, Philosophy, or History, but not more than two full courses.
Philosophy	\$\begin{align*} \begin{align*} \begi	*2 *3 any two.	Classics, Modern Languages, Educa- tion, Economics and Political Science, but not more than two full courses.
Semitic Languagės	*13	(*1) *2 any two. *3 and 4	Classics, History, Philosophy, but not more than two full

GROUP II.
(Science Subjects.)

DEPARTMENT.	Courses Offered.	Prerequisite.	
Biology	Botany *2	*2 4	
	3, *6 5	*2 3	
Chemistry	3	1	
Geology	*2, (*3 and 4)	1	
Physics	3	<b>1</b>	

## GROUP III.

# (Subjects taught in other Faculties.)

FACULTY.	Courses Offered.	Prerequisite.
Law	{ Jurisprudence	

No selection of courses can be made that conflicts with the timetable (see page 157).

Every undergraduate shall, on entering the Third Year, register in the Office of the Dean a statement of the work he intends to take during the remainder of his undergraduate course. Subsequent changes can be made only with the approval of the Dean.

Details of the work in each subject are given on pages 127 to 156.

For regulations whereby the double course in Arts and Applied Science can be taken in six years or Arts and Medicine in eight, see pages 124 and 125.

Commercial Course.—An outline of the Third Year Course for the degree of Bachelor of Commerce will be found on page 166.

#### SUMMER READINGS.

(For students entering the Second, Third and Fourth Years.)

Summer readings are obligatory for every undergraduate and conditioned undergraduate in the Faculty, except in the case of candidates who read and compete for scholarships and exhibitions in September.

The readings prescribed for the session 1921-22 are posted on the notice boards of the Arts Building and the Royal Victoria College.

The summer readings for honour students about to enter the Fourth Year are left in the hands of the departments concerned.

Students will be required at the beginning of the session (Wednesday, October 5th, p.m.) to pass an oral examination in each of the books selected by them.

Students who fail to do this must, before the end of the first term, take a written examination; failure to pass this examination involves the same penalties as failure in one subject in the sessional examinations.

## II. HONOUR COURSES FOR THE DEGREE OF B.A.

Honours of the first, second or third class will be awarded in any if the following Honour courses:—

Biology.
Chemistry.
Chemistry and Biology.
Classics.
Economics and Political Science.
English.
English and French.
English and German.
English and Philosophy.
Geology and Mineralogy.
Greek and English.

Greek and Hebrew.
History.
History and English.
Latin and English.
Latin and French.
Latin and German.
Mathematics and Physics.
Modern Languages.
Philosophy and German.
Philosophy and Psychology.
Semitic Languages.

Honour lectures are open to candidates for the ordinary degree in the third and fourth years, on the recommendation of the department concerned and with the approval of the Dean.

No student is allowed to take more than one Honour course.

A student who has failed to obtain honours in the third year may, on the recommendation of the department, be permitted to enter the ordinary course of the fourth year.

## COURSES FOR THE DEGREE OF B.Sc. (Arts).

An undergraduate may proceed to the degree of B.Sc. (Arts) by taking either one of the two Ordinary Courses or an Honour Course.

#### I. ORDINARY COURSE.

There are two Ordinary Courses, designated respectively A and B.

# Ordinary Course A.

This course has been arranged to give students a thorough training in science as a preliminary to entering a technical business or profession, or for teaching.

First Year.

Chemistry 1.
English 1 and 2.
French 2.
German 1 (b) or 3.
Mathematics 1.
Physics 1.

Special arrangements will be made for students who have passed the matriculation examination in German.

Details of the work in each subject are given on pages 127 to 156.

# SELECTION OF COURSES.

Second Year.—In addition to English Composition, which is compulsory, three subjects must be chosen, of which two must be selected from Group I below; the third subject may be taken from Group I or Group II. Third and Fourth Years.—The three subjects selected in the second year must be continued in the third and fourth years. If biology, however, which consists of a half-course in botany and a half-course in zoology, is chosen in the second year, it may be followed in the third and fourth years by a full course in each of those subjects, in which case one of the sciences chosen in the second year need not be continued.

## GROUP I.

Subjects.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
Biology.	\Zoology 2. ∫Botany 2.	Zoology 3, or 5; or Botany 7.	Botany 7; or Zoology 3 or 5.
Chemistry.	2 or 3: and 4.	2 or 3 and 9.	5 or 6; and 8.
Geology.	1.	5 and 6.	2, 3, 4.
Mathematics.	3.	4 and 5.	6.
Physics.	2 or 3.	2 or 3 and one of 4 or 5.	4 or 5, and one of 6, 7, 12.
	GR	OUP II.	
SUBJECTS.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
Economics and	2 or 3.	Any two of:-	Any two of Econ-
Political Science	•	Economics and	omics and Political
		Political Science	Science, 4 to 12,
		4 to 12.	not chosen in the third year.
English.	3 and 4.	Any two of:-	Any two, not taken
8		5, 6, 7, 15, 19.	in the third year,
			of 5, 6, 7, 9, 10, 11,
			12, 15, 19.
†History.	9: or 5 and 7.	9; or 5 and 7	9.
,		whichever has	
		not been taken	
		in the second	
		year).	
Philosophy.	Any two of:—	4 or 6 or 8 or	4 or 6 or 16 (which-
	1, 2, 3.	<b>11</b> or	ever has not been
		any two of:—	taken in the third
		5, 7, 12, 13, 14,	year) or 10 or any
		15.	two of:—5, 7, 9, 11,
			12, 13, 14, 15 (if
			not already taken.)

<sup>†</sup> Subject to revised announcement of Department to be made in 1921-22.

Students who so desire may on application be permitted to substitute Education in either the third or fourth year for one course in Group II.

Students selecting Physics, as one of the three subjects of the ordinary B.Sc. course, may also select Mathematics.

# Ordinary Course B.

# DOUBLE COURSE B.Sc., M.D.

This course in the physical and biological sciences is especially devised for students who might wish to proceed to a degree in Medicine or to advanced work in physiology, biological chemistry, pharmacology or allied subjects. Students intending to enter the Faculty of Medicine must pass the matriculation examination in Latin before admission to the third year of the B.Sc. course.

Graduates in this course are qualified to enter the third year in the Faculty of Medicine.

## First Year.

English I and 2.
German I (b) or 3.
Mathematics I.
Physics I.
Chemistry I.
French 2.

Second Year.

English Composition 3. Physics 2 and 3. Biology (Botany 1, Zoology 1). Chemistry 3.

Third Year.

Chemistry 2 and 4.
Zoology 5.
Anatomy (as in first year Medicine).

#### Fourth Year.

Chemistry 7 and 10.

Anatomy (as in second year Medicine or Special Advanced Biology).

Physiology (as in second year Medicine).

#### II. HONOUR COURSE FOR THE DEGREE OF B.SC.

Students proposing to take an Honour Course must select one principal subject from Group I (page 118), in which subject they must have obtained at least high second class standing in the First Year;

if the subject chosen for honours is not offered in the First Year, an aggregate standing of high second class must be obtained in all subjects of the First Year.

Students who fail to retain their honour standing will be required either to repeat the year in honours or to proceed to the following year, reverting to the ordinary course, in which case they must take the ordinary work of the honour subjects, together with two of the following subjects:—Mathematics, Physics, Chemistry.

The exact courses of study will be specified by the department concerned. All students will be required to take a course in German 3, and English 3.

# COURSE IN ENGINEERING PHYSICS.

The object of this course is the training of men with an extensive knowledge of mathematics and physics, capable of becoming professors at Canadian or other universities; or in due course consulting engineers; or fitted for positions in the Research Laboratories of the Government or in electric or radio corporations.

It is to be noted that this course is open to capable students from

Arts and Applied Science.

The course in Engineering Physics is open to students in Arts entering their Third or Fourth Year, provided they have satisfactorily passed in the following pre-requisites:—

Mathematics 3, 4, 5. Physics 1, 3, 4, or 2, 3, 4.

## Third Year.

Mathematics 6, 11 (Faculty of Arts, page 143). Physics 5, 6 and 8, or 9 (Faculty of Arts, page 153).

Electrical Engineering 113, 114 (Faculty of Applied Science, page 217).

During their summer vacation at the end of the Second Year, students must spend three months at an approved shop or radio station.

# Fourth Year.

Mathematics 10 (Faculty of Arts, page 143).

Physics 7, 9, or 8, and 10, 11, 12 (Faculty of Arts, page 154).

(Summer Thesis or Shop Work.)

The student may now receive the degree of B.Sc. (Arts), with honours in Mathematics and Physics. In the Fifth Year the student should take the whole of the Fourth Year course for Electrical Engineering (page 189) and also Physics 13 and 16 or 18 (7 has already

been taken) and proceed with research work and a thesis with a view to an M.Sc. degree.

The course must therefore cover five years and should cover six. During the last year (the sixth), opportunity would usually be afforded to act as demonstrator with a salary.

A student who has completed his Second Year in the Faculty of Applied Science and has received first or second class rank in Mathematics and Physics may join the course in Engineering Physics as outlined above.

#### B.Sc. IN AGRICULTURE.

Particulars regarding the course for the degree of Bachelor of Science in Agriculture, the first two years of which are taken in the Faculty of Arts, are given in the Macdonald College Announcement.

# DEGREE OF BACHELOR OF HOUSEHOLD SCIENCE (B.H.S.).

The first two years are to be taken in the Faculty of Arts, and the last two in the School of Household Science, Macdonald College, but the Dean, or the B.A. Advisory Committee of the Faculty of Arts of McGill University, must pronounce on the qualifications of a candidate before he or she can be admitted to the Third Year of this course.

Proposed subjects to be taken in the Faculty of Arts, which may be either in the B.A. or the B.Sc. Course:—

# First Year (B.A. Course).

Greek I or 2, or Latin I.

English 1 and 2.

History 1.

Mathematics 1 or 2.

Latin 1, or Greek 1 or 2, or French 1, or German 1 (a) or 2. Physics 1.

French is strongly recommended as the alternative language.

# Second Year (B.A. Course).

English 3.
Latin 2 or Greek 3 or 4.

Compulsory.

For the remaining three, or three and a half courses, the following are required:—

Botany 2.

Chemistry 1.

Zoology 2.

English 4 or French 3, with the remaining possible half course at the choice of the student from Economics 1 or History 2 or Philosophy 1 or 2 or 3.

# First Year (B.Sc. Course).

Chemistry 1.

English 1 and 2.

French 2.

German 1 (b) or 3.

Mathematics 1.

Physics 1.

# Second Year (B.Sc. Course).

English 3.

Biology:—Botany 2, Zoology 2.

Chemistry 2; and one course from among the following:—Geology 1; Mathematics 3; Physics 2 and 3; Economics and Political Science 2 or 3; English 4; History 3 or 5 and 7; Philosophy, any two of 1, 2, 3.

Proposed subjects to be taken in the School of Household Science at Macdonald College:—

## Third Year.

Economics (1 hour).

English (2 hours).

Principles of Teaching (I hour-half-year).

Bacteriology (1 hour lecture, 2 laboratory periods—half-year).

Biology (I hour lecture, I laboratory period).

Chemistry (1 hour lecture, 2 laboratory periods).

Foods (2 hours lecture, 2 laboratory periods).

The Home (1 hour lecture, 1 laboratory period).

Textiles and Clothing (3 hours—half-yearly).

## Fourth Year.

English (2 hours).

Principles of Teaching (2 hours lecture-practice teaching).

Bacteriology (2 hours lecture, 1 laboratory period).

Chemistry (2 hours lecture, 2 laboratory periods).

Physics (3 hours—half-year).

Foods (2 hours lecture, 2 laboratory periods).

The Home (2 hours).

### PARTIAL STUDENTS.

Students desiring to take a Partial Course in Arts are required to pass the matriculation examination in the subject or subjects which they intend to study, or, failing this, they must satisfy the Head of the Department as to their ability to follow the course. Subject to the

above limitations, lectures are open to Partial Students in both Honour and Ordinary Courses, but no course or courses taken by such students can count for a degree, except by virtue of a special vote of Faculty. Medals, scholarships, exhibitions and prizes shall not be awarded to Partial Students. A certificate of standing can be obtained from the Dean if requested. A partial student who fails in any subject at the First Term Examinations shall be allowed to continue that subject only on the recommendation of the Head of the Department concerned.

#### EXAMINATIONS IN ARTS.

There are two examinations in each session, the Intermediate and the Final. Intermediate Examinations are held either at the end of the first term, or at such intervals during the session as each department may prescribe. In the second, third and fourth years, Intermediate Examinations will be held or not, as may be determined by each department.

Students prevented by illness from attending the Intermediate Examinations will, on presenting a medical certificate to the Dean, be given sessional standing on the result of the Final Examination.

Undergraduates and conditioned undergraduates of the first year who fail in more than three subjects at the Intermediate Examination will be allowed to attend not more than three full courses in the second term, for each of which they must obtain the permission of the Dean.

Seventy-five per cent. of the marks given for the sessional work in each subject will be assigned to the Final Examination.

Successful students are arranged in three classes.

Mid-term examinations for first year students will be held not later than November 15th. Absence from a mid-term examination will be excused only on presentation of a medical certificate. Failure to comply will mean loss of the year.

First Class General Standing at Graduation.—For an Ordinary B.A. degree of the first class, a candidate shall obtain first class standing in at least four of the eight subjects taken in the third and fourth years and not lower than second class in the remainder.

# SUPPLEMENTAL EXAMINATIONS.

Examinations supplemental to final examinations are held in the month of September simultaneously with the matriculation examination. The date of the supplemental examinations will be fixed by the Faculty, and no examination will be granted at any other time, except by special permission of the Faculty, and on payment of a fee of ten dollars.

#### ADVANCEMENT FROM YEAR TO YEAR.

Advancement to the Second Year.—A student may proceed to the second year with any one full course (or its equivalent) unpassed.

Advancement to the Third Year.—A student may proceed to the third year with any one full course (or its equivalent) unpassed, unless that full course (or any part of it) belongs to the first year.

Advancement to the Fourth Year.—A student may proceed to the fourth year with any one full course (or its equivalent) unpassed, unless that full course (or its equivalent) is compulsory in the second year.

Repeating a Year.—By special permission of the Faculty, a student who is required to repeat a year may, on application:—

- (a) Be exempted from attending lectures and passing examinations in the subjects in which he has already passed;
- (b) Be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year in his course.

N.B.—The choice of subjects must involve no conflict of hours as printed in the time-table.

# DOUBLE COURSES.

#### ARTS AND APPLIED SCIENCE.

Candidates for the degree of B.A. and B.Sc. (Applied Science) in six years will take the first three years in Arts only, before attending any regular courses in Applied Science, except the Summer Courses. They will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of that Faculty.

The summer courses (see page 196) are necessary in order to overtake the work in descriptive geometry, drawing and shopwork, which form part of the regular curriculum of the first year in Applied Science. These summer courses must be taken for two periods of one month each (in successive Septembers), after the completion of the regular session of the first and second years in the Faculty of Arts, respectively, and must not be taken during the regular session in any of the three years assigned to that Faculty.

Students who intend to take the double course in Arts and Applied Science must notify the Dean of the Faculty of Applied Science to that effect at or before the close of their first year in Arts (May 1st), and must, before the first of September following, pay the fee of \$50.00 to the Bursar, for the first of their summer courses.

The requirements for each of the three years in the Faculty of Arts are as follows:—

### First Year.

The curriculum as laid down for the B.A. degree, except that a modern language must be taken. It is recommended that mathematic be taken instead of mathematics 1.

# Second Year.

English 3.

French 3. or German 4.

German 4, or French 3, or English 4, or Economics and Political Science 1, and History 2, or Philosophy, any two of:—1, 2 and 3.

Latin 2, or Greek 3 or 4.

Mathematics 3 and 5 and Physics 4 (students who have taken Mathematics 2 may substitute 4 for 3).

### Third Year.

Physics 2.

Any three of the following:-

English, any two of 5, 6, 7, 15, 18; Latin 3; French 6 or 7; German 5 or 6; Philosophy 4 or 6 or 8 or any two of 5, 7, 12; History 9 or 5 and 7; Economics and Political Science 2, 3.

The degree of B.A. will be conferred on double course students in Arts and Applied Science on the completion of the prescribed curriculum in Arts and the requirements of the second year in Applied Science.

### ARTS AND MEDICINE.

The degrees of B.A. and M.D. may be obtained in eight years, of which the first two shall be taken in the Faculty of Arts, and the remaining six in the Faculty of Medicine. The course in Arts is as follows:—

### First Year.

I. B.A., M.D.

English 1 and 2.
History 1.
Mathematics 1 or 2.
Latin 1 or Greek 1 or 2.
Any two additional languages.

### Second Year.

English Composition 3.

Latin 2.

Any three of the following:-

Economics and Political Science 1, and History 2.

English 4.

French 3.

German 4.

Hebrew 2.

Greek 3 or 4 or Latin 2.

Philosophy, any two of:—1, 2, 3.

Mathematics 3.

In the double course for the degrees of B.A., M.D., the degree of B.A. will be conferred on the completion of the above curriculum in Arts and of the second year in Medicine.

# II. B.Sc., M.D.

For the requirements of the B.Sc. course for students proceeding to the Faculty of Medicine, see page 119.

### ARTS AND DENTISTRY.

The degrees of B.A. and D.D.S. may be obtained in six years, of which the first two shall be taken in the Faculty of Arts and the remaining four in the Faculty of Dentistry. The course in Arts is the same as that prescribed for the double course of B.A., M.D. (see I, above).

### B. COM. AND B.A.

Graduates in Commerce who desire to obtain the degree of B.A. may be admitted to the Third Year in Arts provided that at some time before entering Third Year Arts they shall have taken Latin I and 2 of the B.A. curriculum, or an equivalent.

### ARTS AND THEOLOGY.

Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the third and fourth years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

# COURSES OF LECTURES IN ARTS.

The hours of the ordinary lectures only are indicated; the hours for honour lectures will be arranged by the several departments at the opening of the session.

# DEPARTMENT OF BOTANY.

Professor:—Francis Ernest Lloyd.

Professor of Morphological Botany:—Carrie M. Derick.

Lecturer:—George W. Scarth.

Demonstrator:—Jennie Symons.

	,
ı.	General Biology.
	As in first year MedicineProfessor Lloyd, Mr. Scarth.
2.	Elements of Botany.
	2 hrs. 2nd term; Mon., Wed., at 104 hrs. lab.; Sat., 9 to 1.
	Professor Lloyd or Professor Derick.
/	Trerequisite for all courses
	for Honours in Biology. For course 5, either Botany 1 or
	2 or Zoology 1 or 2 will be accepted.
3.	Classification of the Pteridophyta and Spermatophyta.
•	Eight lectures (optional). 2nd Term (MarApr.).
	Professor Lloyd or Professor Derick.
4.	Comparative Plant Morphology.
	2 hrs. sess.; Tu., Fri., at 106 hrs. labProfessor Derick.
5.	Variation, Heredity and Evolution.
•	2 hrs. sess.; Tu., Fri., at 11
6.	Histology and Anatomy.
	2 hrs. sess4 hrs. lab
7.	Elementary Plant Physiology.
,	2 hrs. sess6 hrs. lab
8.	Plant Pathology
٠.	2 hrs. sess6 hrs. lab
q.	General Physiology.
9.	As in Second Year Medicine Professor Lloyd, Mr. Scarth.
10	Pharmaceutical Botany.
10.	For pharmacy studentsProfessor Lloyd, Mr. Scarth.
	1 Or production of the second

# HONOUR COURSE IN BIOLOGY.

Prerequisites: Botany 2, Chemistry 1, Zoology 2.

Third Year: Botany 4 and 6; Zoology 3 and 4.

Fourth Year: Botany 7 and 8; Zoology 5 and 6.

### CRADUATE COURSE.

Prerequisites: Botany 2 to 8; Chemistry 1; Zoology 2; or equivalent courses taken elsewhere.

Special courses to meet the needs of students who may be preparing for particular vocations can usually be arranged for on consultation with the Professor.

## DEPARTMENT OF CHEMISTRY.

DIRECTOR:-R. F. RUTTAN.

PROFESSOR OF BIO-CHEMISTRY:—A. B. McCallum. PROFESSOR OF INORGANIC CHEMISTRY:—F. M. G. JOHNSON.

Associate Professors:—

{ N. N. Evans. Otto Maass. G. S. Whitby.

Assistant Professors:— { A. R. M. MacLean. H. W. Hatcher.

LECTURERS: - { G. S. WHITBY. G. E. SIMPSON.

C. A. WRIGHT.
J. F. LOGAN.
N. C. McFarlane.

N. C. MCFARLANE E. H. BOOMER.

DEMONSTRATORS:— J. DOLID.

T. P. SHAW.

W. R. McGlaughlin.

T. B. MILLAR.

DOROTHY CHARLTON.

(Unless otherwise specified, all lectures and laboratory courses are given in the Chemistry Building.)

# 1. General Chemistry.

3 hrs. sess.; Mon., Tu., Th., at 2....Professors Ruttan and Evans. 4 hrs. lab., Mon., Thu., 3 to 5...

Dr. A. R. MacLean and Messrs. Wright, Miller and Miss Charlton. Text-books:—Alex. Smith, General Chemistry for Colleges, new edition.

# 2. Organic Chemistry.

3 hrs. 1st term; Mon., Wed., Fri., at 3..........Professor Ruttan (Old Medical Building).

2 hrs. 2nd term; Tu., at 10, Th., at 12.......Professor Ruttan. 6 hrs. lab., 2nd term......Drs. A. R. MacLean and Whitby, Mr.

McGlaughlin and Miss Charlton.

Text-books:—Remsen or Perkin and Kipping; Norris' Experimental Organic.

# 3. Analytical Chemistry.

- (a) QUALITATIVE ANALYSIS.
- I hr. 1st term; 9 hours lab......

Professor Evans, Mr. Greaves and Miss Charlton.

Text-book: - Steiglitz, Qualitative Analysis.

(b) QUANTITATIVE ANALYSIS.

I hr. 2nd term; 12 hrs. lab....Prof. Johnson and Mr. McFarlane. Text-book:—Cumming and Kay, Quantitative Analysis.

# 4. Elementary Physical Chemistry.

2 hrs. 1st term; Tu., at 10, Th., at 12....Asst. Professor Maass. Text-book:—Walker, Introduction to Physical Chemistry.

# 5. Organic Chemistry (Advanced).

2 hrs. sess.; Tu., at 9, Fri., at 11...............Professor Whitby. 12 hrs. lab.....

Professor Ruttan and Drs. Maclean and Whitby and Mr. J. Dolid.

# 6. Inorganic Chemistry (Advanced).

2 hrs. sess.; Tu., at II; Wed., at 10.............Professor Johnson.

# 7. Physical Chemistry (Advanced).

Professor Maass and Messrs. Wright and Boomer.

# 8. Quantitative Analysis (Advanced).

# 9. Historical Chemistry.

I hr., 2nd term......Professor Maass.

# 10. Biological Chemistry.

3 hrs. sess., 2nd term; Mon., Wed. and Fri., at 3....

(Old Medical Building.) Professor A. B. Macallum.

6 hrs. lab., 2nd term; Wed. and Sat., 9 to 12....

(Old Medical Building.)

Prof. A. B. Macallum and Messrs. Simpson and Logan. Text-book:—Hawk's Practical Physiological Chemistry.

# 11. Biological Chemistry (Advanced).

5 hrs. lab., 2nd term....

(Old Medical Building.)

Professor A. B. Macallum and Mr. G. E. Simpson.

12. Electro-Chemistry.

2 hrs., 1st term; Mon., at 9. Fri., at 12....... Professor Maass.

13. Food Chemistry.

14. Industrial Inorganic Chemistry.

2 hrs., 1st. term; Wed. and Fri., at 11........ Professor Johnson.

15. Industrial Organic Chemistry.

2 hrs., 2nd term; Wed. and Fri., at 11.......Professor Johnson.

16. Colloid Chemistry.

2 hrs., 2nd term, with lab......Professor Johnson.

### HONOUR COURSE IN CHEMISTRY.

Prerequisites: 1.

Third Year: 2, 3, 4; Physics 2; and a half-course in calculus or biology or geology or mineralogy or scientific German.

Fourth Year: (a) 5, 7, 9, 10 (11 optional), or, (b) 6, 7, 8, 9; Physics 3.

HONOUR COURSE IN CHEMISTRY AND BIOLOGY.

Second Year: Latin 2; English 3; Chemistry 1; Botany 2; Zoology 2; and either French 3, or German 4. Third Year: Either Physics 2 or French 7 or German 6 and Chemistry 2 (first term only), 3 (a) and 10; Zoology 3; Botany 4 or 7. Fourth Year: A full course in physics or biology or advanced chemistry and Chemistry 3 (b), 11 or 16; Zoology 5; Botany 6.

### DEPARTMENT OF CLASSICS.

PROFESSOR:—S. B. SLACK.

Assistant Professors:—

( R. A. MacLean.

A. M. Thompson.

C. Carruthers.

Sessional Lecturer and Tutor (Royal Victoria College):—
Elizabeth A. Irwin.

### Greek.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, a classical dictionary, and an Atlas of ancient geography. The following are recommended:

CLASSICS 131

—An Elementary Greek Grammar, Bryant and Lake (Oxford Univ. Press); or Goodwin's Greek Grammar (Ginu & Co.); Liddell and Scott's Greek Lexicon (abridged or intermediate); Classical Atlas (Everyman Scries, Dent); Smith's Smaller Classical Dictionary (Everyman Series, Dent).

# 1. Beginners' Greek.

4 hrs. sess.; Mon., Tu., Th., Fri., at 3.....

Text-books:—White's First Greek Book (Ginn & Co.); Passages for Greek Translation (Peacock & Bell, Macmillan).

# 2. Ordinary Greek.

4 hrs. sess.; Mon., Tu., Th., Fri., at 3.....

Text-books:—Cebetis Tabula (Jerram, Clarendon Press); Euripides, Heraclidae (Jerram, Oxford Univ. Press). Composition:—Greek Exercises, Bryant and Lake (Oxford Univ. Press) and Elementary Greek Grammar, Bryant and Lake (Oxford Univ. Press).

Translation at sight:—Jerram Anglice Reddenda, Second Series.

### 3. Greek.

4 hrs. sess.; Mon., Tu., Th., Fri., at 4.....

Summer reading:—Greek History for Schools, Edmonds, pp. 140-217 (Camb. Univ. Press).

Text-books:—Lucian. Vera Historia. Book II: Thucydides, Book I, cc. 89-119 (inclusive). Composition:—North and Hillard, Greek Prose Composition (Rivingtons). Translation at sight:—As in 2. Prerequisite:—I.

### 4. Greek.

4 hrs. sess.; Mon., Tu., Th., Fri., at 4.....

Summer reading:—As in 3. Texts:—Plato, Apology (Stock, Clarendon Press); Sophocles, Ajax (Jebb, Rivingtons). Composition:
—North and Hillard, Greek Prose Composition (Rivingtons). Translation at sight:—As in 2.

# 5. Greek Language and Literature.

4 hrs. sess.; Mon., Tues., Wed., Fri., at 11......Professor Slack. Texts:—Demosthenes, On the Peace, Philippic II, Chersonese. Philippic III (Sandys, Macmillan); Homer, Odyssey IX-XII. Composition:—As in 4; also Sidgwick, Introduction to Greek Prose Composition (Longmans). Translation at sight:—Fowler, Sportella. Literature:—A course of twelve lectures on some period of Greek history or literature or on some aspect of Greek life or thought.

# 6. For the Session 1922-1923. To be announced next year.

### 7. Greek.

4 hrs. sess.; Mon., Tu., Wed., Th., at 9.....

Texts:—Plato, Republic IV, Aristophanes, Nubes, Aeschylus, Septem, c. Thebes. Composition:—As in 5 and from dictation. Translation at sight:—Models and Exercises in Unseen Translation, Fox and Bromley (Clarendon Press).

8. For the Session 1922-1923. To be announced next year.

# HONOUR COURSE.

Prerequisites: - Greek 1 and 3, or 2 and 4.

Third and Fourth Years: Greek 5 and 7. Honour students will also do the following private readings: Third year only, Aeschylus Persae; Fourth Year only, Xenophon, Oeconomicus; Sophocles, Antigone.

### GRADUATE COURSES.

# Suggested Subjects:-

- 1. The Phoenicians in Homer.
- 2. Socialistic theories in antiquity.
- 3. The accounts of Egypt in Herodotus and other Greek writers.
- 4. Life and times of Demosthenes.
- 5. Greek Comedy.

N.B.—See note under Latin Graduate Courses.

### Latin.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English Dictionary, a classical Dictionary, and an Atlas of Ancient Geography. The following are recommended:—Sonnenschein. New Latin Grammar (Clarendon Press, 1912; N.B.—Note the exact title); Lewis, School Dictionary, or White, Junior Students' Latin-English Dictionary: "Everyman" Classical Atlas (Dent.); Smith, Smaller Classical Dictionary ("Everyman" Series, Dent.).

The following book is also recommended: Roman History Liter-

ature and Antiquities by A. Petrie (Oxford Univ. Press).

### 1. Latin.

4 hrs. sess.; Mon., Wed., Th., Fri., at 10 (Men).

4 hrs. sess.; Mon., Tu., Wed., Fri., at 11 (Women, R.V.C.).

Text-books:—Petrie's Latin Reader (Oxford Univ. Press), Extracts XCI to CIII (inclusive), omitting XEII, extracts CXVI to CXIX (inclusive), and CXXIV to CXXXI (inclusive); Cicero, de Senectute. Composition:—Writing of Narrative Latin by B. W. Mitchell (American Book Company). Translation at sight:—Rivingtons' Class Books of Latin Unseens, Book IV. Grammar:—Son-

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nenschein, New Latin Grammar (Clarendon Press, 1912. N.B.—Note the exact title), pages 178-211.

Advanced Class:-See 7.

### 2. Latin.

4 hrs. sess.; Mon., Tu., Th., Fri. at 12 (Men); Mon., Tu., Th.,

Fri., 12 (Women, R.V.C.).

Texts:—Horace, Odes III; Gleason, Term of Ovid, pp. 49-76; Sallust, Catiline. Composition:—Additional Latin Exercises to North and Hillard's Latin Prose Composition by Hillard and Botting (Rivingtons). Translation at sight:—Anglice Reddenda, Second Series (Clarendon Press). Grammar:—Sonnenschein, New Latin Grammar (Clarendon Press, 1912. N.B.—Note the exact title), pages 123-178.

Advanced Class:-See 7.

# 3. Latin Language, Literature and History.

4 hrs. sess.; Mon., Wed., Th., Fri., at 10.....

Lectures:—Texts: Tacitus Annals I; Martial, Extracts from Books XI and XII in Bridge and Lake, Select Epigrams of Martial, VII-XII (Clarendon Press); Literature of the Empire, Social Types and Social Incidents in Brown's Latin Literature of the Early Empire (Clarendon Press). Composition:—Continuous Latin Prose, Dakers (Rivingtons). Translation at sight:—As in 2. Literature:—A course of twelve lectures on Roman history, antiquities, literature or religion.

4. For the Session 1922-1923. Subjects to be announced next year.

# 5. Latin.

4 hrs. sess.....

Texts:—Cicero, Pro Milone; Plautus, Captivi; Horace, Epistles I. Composition:—Nixon, Prose Extracts for Translation into English and Latin (Macmillan). Translation at sight:—Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

- 6. For the Session 1922-1923. Subjects to be announced next year.

### HONOUR COURSE.

Prerequisites:-Latin I and 2.

Third and Fourth Years:—Latin 3 and 5 and the following additional books for private reading (for Third Year only): Terence, Phormio; (for Fourth Year only): Cicero pro Cluentio; Terence, Andria; Horace Odes IV.

### GRADUATE COURSES.

For students who wish to take the above, the following subjects are suggested:—

- I. Virgil as an Epic Poet.
- 2. The treatise ad Herennium.
- 3. Social Life of the Empire.
- 4. Roman Satire.
- 5. The History of the East, including Egypt, from 31 B.C. to 96 A.D.

N.B.—It is not likely that more than one of the ten subjects given under the headings Latin and Greek can be taken up in the session 1921-22. The list therefore is intended for the guidance of students, but precise details with regard to the books prescribed and the thesis are reserved for further discussion.

# Comparative Philology.

I.	Introductory	Course.

2 hrs. 1st term......Professor Slack.

### 2. Latin and Greek Historical Grammar.

### DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

Professor:—Stephen Leacock. Associate Professor:—J. C. Hemmeon.

Assistant Professor:—B. K. Sandwell.

# 1. Elements of Political Economy,

# 2. Principles of Economic Theory.

4 hrs. sess.; Mon., Tu., Wed., Fri., at 11.... Professor Hemmeon.

# 3. Principles of Political Science.

4 hrs. sess.; Mon., Tu., Th., Fri., at 2.......... Professor Leacock.

# 4. Labour Problems.

4 hrs. 1st term; Mon., Tu., Wed., Fri., at 10.... Prof. Hemmeon.

# 5. Money and Banking.

4 hrs. 2nd term; Mon., Tu., Th., Fri., at 3.... Professor Leacock.

# 6 Political Economy Prior to the Nineteenth Century.

4 hrs. 1st term; Mon., Tu., Wed., Fri., at 10... Prof. Hemmeon. (Given in 1923-24.)

# 7. Political Economy in the Nineteenth Century.

4 hrs. 2nd term; Mon., Tu., Th., Fri., at 3... Professor Leacock. (Given in 1923-24.)

- 8. Economic Factors in the Development of Society.
  4 hrs. 1st term; Mon., Tu., Wed., Fri., at 10... Prof. Hemmeon.
  (Given in 1922-23.)
- The Political and Social Theories of Modern Times.
   4 hrs. 2nd term; Mon., Tu., Th., Fri, at 3. Professor Leacock. (Given in 1922-23.)
- Canada:—Federal and Provincial Governments.
   4 hrs. 1st term; Mon., Tu., Th., Fri., at 3...Professor Leacock.
- 11. Public Finance.
  4 hrs. 2nd term; Mon., Tu., Wed., Fri. at 10...Prof. Hemmeon.
- Seminar.
   Conferences with graduate students at hours specially arranged.
   Prof. Leacock, Assoc. Prof. Hemmeon and Asst. Prof. Sandwell.

### HONOUR COURSE.

Prerequisite: No. 1. Third Year: Nos. 2 and 3, together with 4 and 5, or 6 and 7, or 8 and 9 (according to the year), and one approved course in History or French or Philosophy. Fourth Year: Nos. 4 and 5, or 6 and 7, or 8 and 9 (according to the year), and Nos. 10, 11, 12 and one half-course (approved) in History or French or Philosophy or Roman Law.

### GRADUATE COURSE FOR M.A. DEGREE.

Prerequisites: Nos. 2, 3, 4 and 5 (or 6 and 7; or 8 and 9); 10, 11, or equivalent courses taken elsewhere. Resident study, one year, with at least eight lectures a week selected from (a) any courses among Nos. 4, to 12 (inclusive), not already taken, (b) any special courses offered from time to time, (c) any courses approved by the department, together with a thesis. Non-resident study: At least two years' work covering the same ground as above, with examination, and a thesis.

Students who propose to take Economics and Political Science as a minor subject for the M.A. degree must have taken as undergraduates Courses Nos. 1, 2, 3 and two other full courses, or work in another University recognized by the department as the equivalent of this.

### SCHOLARSHIPS.

For scholarships, see page 81.

### DEPARTMENT OF EDUCATION.

Dean of the School for Teachers, MacDonald College, and  $P_{\rm ROFESSOR}$  of Education:—Sinclair Laird.

(For the staff of the School for Teachers, see Officers of Instruction.)

- Principles of Education; Psychology of Education; History of Education.
  - 2 hrs. sess.; Tues., Thurs., at 4...... (To be taken preferably in the third year.)
- 2. (1) Methods of Teaching.
  - A. Principles of general method.
  - B. Special methods in elementary subjects.
  - C. Special methods in High School subjects.
  - (2) School and Class Management.
  - A. School administration, and school law and regulations of the Province of Quebec.
  - B. Class management and discipline.
  - 2 hrs. sess.; Tues., Thurs., at 5.

(To be taken in fourth year.)

Courses I and 2 are required for the High School Diploma of the Province of Quebec, together with (a) fifty half-days of practice teaching and criticism lessons under expert supervision. (b) A course in physical education qualifying for the Strathcona Certificate, Grade B. This course is taken in the fourth year before Christmas. See page 329.

GRADUATE COURSE.

# 3. Readings, Reports, Theses.

### TRAINING OF TEACHERS.

The University, through its Department of Education, undertakes the training of teachers in all grades required by the Province; and, through the Teachers' Training Committee, offers training for specialists in certain subjects. See page 162.

### DEPARTMENT OF ENGLISH.

PROFESSOR OF ENGLISH AND OF COMPARATIVE LITERATURE:— P. T. LAFLEUR.

Associate Professors:— Cyrus Macmillan.

G. W. LATHAM.

LECTURERS: - \{ MURIEL B. CARR. (On leave of absence.) \}

A. S. NOAD.

# r. English Composition.

1 hr. sess.; Mon., at 12 (Men); Tu., at 9 (Women, R.V.C.)...........Professor Latham and Mr. Noad. Required of all first year undergraduates.

2.	English Literature: General Course.  2 hrs. sess.; Tu., Th., at 12 (Men)Professor Macmillan.  Mon., Wed., at 9 (Women, R.V.C.)
3.	English Composition.  I hr. sess.; Fri., at 3 (Men)
4.	English Prose from Bacon to Stevenson. 3 hrs. sess.; Mon., Tu., Th., at 3 Professors Lafleur, Macmillan and Latham.
5.	Pre-Shakesperian Drama and Shakespere.  2 hrs. sess.; Mon., Th., at 4
6.	Shakespere (Five Plays). 2 hrs. sess.; Tu., Th., at II
7.	Poetry and the Drama from Dryden to Moore. 2 hrs. sess.; Tu., Th., at 10
8.	Argumentation and Debating.  2 hrs. sess
9.	Poets of the Nineteenth Century.  2 hrs. sess.; Tu., Fri., at 4
10.	English Novelists, From Defoe to George Eliot. 2 hrs. sess.; Mon., Fri., at 11
11.	The English Drama, 1590-1642. 2 hrs. sess.; Mon., Wed., at 12
12.	Methods of Literary Criticism. 2 hrs. sess.; Wed., Th., at 11
13.	Anglo-Saxon.  2 hrs. sess.; Tu., Fri., at 2
14	Anglo-Saxon Poetry and Introduction to Germanic Philology. 2 hrs. sess.; Tu., Fri., at 3

15. Chaucer and Milton.

16. American and Canadian Literature.

2 hrs. sess.; Tu., Th., at 3.....Professors Macmillan and Latham. (Omitted 1921-22; given 1922-23.)

17. Comparative Literature.

The influence of English literature upon the continent of Europe, chiefly during the 18th and 19th centuries.

18. The literary relations between the continent of Europe and England through the works of leading French, German, Spanish and Italian writers, beginning with Montaigne.

### HONOUR COURSE.

Prerequisite:-4.

Third Year: -5, 6, 7, 13, 15, 16 or 17, and another half course.

Fourth Year: -6, 9, 10, 11, 12, 14, 15, 16 or 17, 18.

English requirements for the honour courses in English and Latin, English and French, and English and German:—

Third Year:-13, and three courses (aggregating six hours) chosen from 5 to 18.

Fourth Year:--14, and three courses (aggregating six hours) chosen from 5 to 18, not taken in the third year.

English requirements for the honour courses in English and History, English and Philosophy:—

Third Year:—Any courses aggregating eight hours chosen from 5 to 18.

Fourth Year:—Any courses aggregating eight hours chosen from 5 to 18, not taken in the third year.

### GRADUATE COURSES.

# 20. Anglo-Saxon.

Beowulf.

2 hrs. sess......

### 21. Germanic Philology.

### 22. Comparative Literature.

Epistolatory Literature.

# 23. Comparative Literature.

Memoirs and Memoir-Writers beginning with Philippe do Commines.

2 hrs. sess......Professor Lafleur.

### 24. Chaucer.

# 25. Drama in England From 1642 to 1900.

Candidates for M.A. with English as a major subject must take eight hours of lectures a week, four of which must be selected from "Graduate Courses." Course 13 or its equivalent is compulsory.

Candidates for M.A. with English as a minor subject must take four hours of lectures a week, exclusive of 1 to 4.

# DEPARTMENT OF GEOLOGY AND MINERALOGY.

Professors:— {Frank D. Adams.}

J. Austen Bancroft (absent on leave).

Acting Professor:—H. C. Cooke.

Assistant Professor of Geology:—To be appointed.
Assistant Professor of Mineralogy:—R. P. D. Graham.
Le Roy Fellow in Geology:—George William Bain.
Sessional Lecturer:—John A. Dresser.
Demonstrator:—E. Ardley.

# 1. General Geology.

3 hrs. sess.; Mon., Wed., Fri., at 9... Prof. Adams and Dr. Cooke. Weekly excursions on Saturday mornings while the season permits. On their discontinuance, 2 hrs. lab., Sat., at 10. Text-book:—Scott, Introduction to Geology.

# 2. Physiography.

# 3. Canadian Geology.

# 4. Historical Geology (Advanced).

1 hr. sess.; Mon., at 12; 3 hrs. lab., 2nd term; Mon., at 2. Prerequisite:—1.

### 5. Mineralogy.

2 hrs. sess.; Tu., Th., at 9.........Assistant Professor Graham.

# 6. Determinative Mineralogy.

# 7. Ore Deposits.

4 hrs., 2nd term: Tu., at 10; Wed., Th., at 11.. Professor Adams.

# 8. Economic Geology.

# 9. Optical Mineralogy and Crystallography.

2 lab. periods, 1st term, 3 hrs. each.
Hours to be arranged............Assistant Professor Graham.

# 10. Petrography.

I hr., 1st term; Tu., at 10; I lab. (3 hrs.) sess.; Mou., at 2.

Dr. Cooke and Assistant Professor Graham.

# 11. Advanced Petrography.

Laboratory work-all hours to be arranged..........Dr. Cooke.

# 12. Palaeontology.

2 hrs. sess.; I lab. (3 hrs.), sess. All hours to be arranged.

# 13. Geological Colloquium.

One evening in alternate weeks (to be arranged)......

Professor Adams, Dr. Cooke, Asst. Professor Graham.

# 14. Geological Survey.

Two weeks at the close of the third year, or immediately before beginning the regular course of the fourth year.

### Honour Course.

Third Year:—1, 5, 6, 9; also Zoology 2 and Chemistry 1. If any of these courses have been already taken, equivalent courses will be assigned.

Fourth Year: -2, 3, 4, 7, 8 and 10 to 14 inclusive; also Botany 2

### HISTORY

# DEPARTMENT OF HISTORY.

Professor:—	
PROFESSOR:—C. E.	FRYER.
Sessional Lecturer:-	

The courses enumerated below are the same as those which were offered in 1920-21. A revised announcement for the Department will be made at the beginning of the session 1921-22.

I.	2 hrs. sess.; Tu., at 10; Th., at 11 (Men); Fri., at 9; Wed., at 12 (Women, R.V.C.)
2.	The European States System. 2 hrs. sess.; Tu., Wed., at 11
3.	History of Europe, 1519-1789. 4 hrs. sess.; Mon., Wed., Th., Fri., at 10
4.	The Renaissance. 2 hrs. sess
5•	The Political History of Europe From 1815-1878. 2 hrs. sess
б.	Europe Since the Fall of Bismarck. 2 hrs. sess.; Mon., Wed., at 4
7.	History of Canada, 1763-1837.  2 hrs. sess
8.	Historical Method and Criticism.  Seminar, 2 hrs. sess
9.	The History of England Since 1784. 4 hrs. sess.; Mon., Tu., Th., Fri., at 9
10.	Recent History of the Great Powers.  2 hrs. sess
II.	History of European Colonisation.  2 hrs. sess

### HONOUR COURSE.

Prerequisites:-1 and 2.

History requirements for the honour course in History and English:—

Third Year:-To be announced later.

Fourth Year:-To be announced later.

### GRADUATE COURSE.

Prerequisites:—1 and 2 and two full courses selected from courses 3 to 10, inclusive, or equivalent courses taken elsewhere.

### DEPARTMENT OF MATHEMATICS.

Professor:—J. Harkness.

Associate Professor:—A. H. S. Gillson.

Assistant Professor:—T. H. Matthews.

# 1. Ordinary Mathematics.

4 hrs. sess.; Mon., Tu., Wed., Th., at 9 (Men); Mon., Tu., Th., Fri., at 12 (Women, R.V.C.).....

Associate Professor Gillson, Assistant Professor Matthews. Plane and Solid Geometry:—2 hrs. 1st term.

Text-book: - Hall and Stevens.

Algebra: -2 hrs. 2nd term.

Text-book:—Hall and Knight (omitting chaps. 40 to 42 inclusive). Trigonometry:—2 hrs. sess.

Text-books:—Hall and Knight, Elementary Trigonometry (to page 210 and chap. 19); Bottomley, Logarithmic Tables.

# 2. Advanced Ordinary Mathematics.

Geometry and trigonometry and modern pure geometry; advanced algebra, higher trigonometry and theory of equations.

4 hrs. sess......Prof. Harkness and Asst. Prof. Matthews.

# 3. Solid Geometry and Geometrical Conic Sections and Algebra.

3 hrs. sess.; Mon., Wed., Fri., at 11......Asst. Prof. Matthews. Solid Geometry:—

Text-book: - Wilson, Solid Geometry and Geometrical Conics.

Algebra:—Permutations and combinations; binomial theorem; exponential and logarithmic series; interest, annuities and bonds; undetermined co-efficients; partial fractions; summation of typical series; probabilities; determinants; graphic methods.

Text-book:—Hall and Knight, Higher Algebra.

	***************************************
4.	Analytical Geometry and Infinitesimal Calculus. 4 hrs. sess.; Mon., Wed., Th., Fri., at 10
	Professors Harkness and Gillson.
	Advised Elective No. 5.
5.	•
	1 hr., 2nd termAssistant Professor Matthews.
6.	Advanced Infinitesimal Calculus, Differential Equations and Geometry of Three Dimensions.  4 hrs. sess
7.	Theory of Functions.
	3 hrs. sess
8.	Modern Differential Equations.
	2 hrs. sess
9.	Modern Analytical Geometry.
	5 hrs. sess
10.	Differential Equations of Mathematical Physics.
	3 hrs. sess
II.	The Elements of Astronomy.
	2 hrs. 1st or 2nd term as may be arranged  Prerequisites:—1 and 3. Professor Gillson.
12.	Theory of the Potential.
	2 hrs. sess
	Honour Course in Mathematics and Physics.
En	Prerequisites:—Mathematics 2; Physics 1 or 2.  Second Year:—Mathematics 3, 4, 5; Physics 3, 4; Chemistry 1; glish 3.
15H)	Third Year:—Mathematics 6, 11; Physics 5, 6, 7, and 8 or 9. Fourth Year:—Mathematics 7, 8; Physics 8 or 9, and 10, 11, 12.

# GRADUATE COURSE.

Mathematics:—7, 10, 12. Prerequisites:—2, 3, 4, 5, 6.

### DEPARTMENT OF MODERN LANGUAGES.

Professor:—Hermann Walter.
Associate Professor:—R. Du Roure.

 $\mbox{Assistant Professors:--} \left\{ \begin{aligned} &\mbox{J. L. Morin.} \\ &\mbox{E. T. Lambert.} \\ &\mbox{P. Villard.} \end{aligned} \right.$ 

Lecturer in French (Royal Victoria College):—MLLE L. Touren.

Lecturer in German:—Miss B. Meyer, M.A.

### A .- French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character. The Department profits by the co-operation of French church services, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

# 1. French Language.

4 hrs. sess.....

Mon., Wed., Th., Fri., at 10 (Women, R.V.C.).

Mon., Tu., Wed., Fri., at 11 (Men).

Asst. Professors Morin, Villard and Mlle Touren.

Texts:—(a) Bouvet, French Syntax and Composition (Heath); Super-Histoire de France (Holt); Mansion, Extracts for French Composition (Heath); Fabliaux et Contes du Moyen Age (Heath). (b) Bazin, Six Contes choisis (Oxford); Hugo, Gavroche (Oxford); Maupassant, Huit Contes Choisis (Heath); Labiche, Le Voyage de M. Perrichon (Holt); Malot, Sans Famille (Heath); Poésies Choisies.

Advanced Section, in place of course (b):—Daudet, Lettres de mon moulin (Oxford); Racine, Andromaque (Ginn); Mérimée, Contes et Nouvelles (Oxford); Montesquieu, Lettres Persanes (Macmillan); Bowen, Modern French Lyrics (Heath).

# 2. French Science Readings.

# 3. French Language.

4 hrs. sess.; Mon., Tu., Wed., Th., at 9 (Women, R.V.C.).
Mon., Tu., Wed., Th., at 9 (Men).....

Asst. Professors Morin, Villard, Lambert, and Mlle Touren. Texts:—(a) Grandgent, French Composition (Heath); Corneille, Horace (Oxford Univ. Press); Vigny, Cinq-Mars (Heath); (b) Racine, Britannicus (Holt); Molière, Les précieuses ridicules (Heath); Vigny, Servitude et grandeur militaires (Oxford); Mansion, Littérature, française.

Advanced Section, in place of course (b):—Seventeenth Century French Readings (Holt); Molière, Les précieuses ridicules (Heath); Voltaire, Zadig (Macmillan); Musset, Trois Comédies (Heath); Hugo, Ruy Blas; Bowen, Modern French Lyrics (Heath); Mansion, Littérature française.

Private Readings:—Pailleron, Le Monde où l'on s'ennuie (Heath); Hugo, Notre Dame de Paris (Ginn).

# 4. French Commercial Course.

# 5. French Commercial Course.

# 6. French Literature:—General Course to the end of the Seventeenth Century.

4 hrs. sess.; Mon., Tu., Th., Fri., at 12. (Given in 1922-23.)

Texts:—Oxford Book of French Verse; Darmsteter, Morceaux Choisis du XVIIe siècle (Delagrave); Montaigne, Selections (Heath); Rabelais, Selections (Macmillan); French Prose of the XVIIth Century (Heath); Corneille, Polyeucte; Racine, Phèdre; Molière, Le Misanthrope; Mme de La Fayette, Princesse de Clèves; Doumic, Histoire de la Littérature française.

Prose Composition:—Spiers, Translation into French Prose (Simpkin, Marshall).

# French Literature:—General Course, Eighteenth and Nineteenth Centuries.

4 hrs. sess.; Mon., Tu., Th., Fri., at 12.

(Given in 1921-22.) Mlle Touren and Prof. Du Roure. Texts:—Lesage, Gil Blas (Heath); Marivaux, Le jeu de l'amour et du hasard (Macmillan); Diderot, Selections (Heath); J. J. Rousseau, Selections; Voltaire, Prose Selections (Heath); Chateaubriand, René (Nelson); Beaumarchais, Barbier de Sèville (Ginn); Flaubert, Trois Contes (Nelson); Hugo, Hernani; Balzac, Père Goriot; Sainte-Beuve, Selections (Cambridge Univ. Press); French Lyrics of the Nineteenth Century (Ginn); Doumic, Histoire de la Littérature française.

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall & Co., London).

N.B.—In order to be admitted to courses 5 and 6 a student must know French well enough to take lectures delivered in French and express himself in French with some fluency and correctness.

# 8. Mediaeval French Literature and Philology.

Texts:—Darmsteter's Cours de Grammaire Historique, Parts I and II, and Bartsch, Chrestomathie de l'Ancien Français.

# g. Composition.

# 10. History of the French Novel.

# 11. Evolution of the French Lyric.

### HONOUR COURSE.

Prerequisites:-1, 3.

Third and Fourth Years:—6, 7, 8, 9 (two years), 10, 11.

In order to obtain honours, candidates must be able to speak French fluently.

### GRADUATE COURSE.

The following resident graduate courses will be offered in 1921-22.

### M.A. Courses.

- Comparative Literature (English Section, Course 16). Two hours weekly.
- 2. Versification, histoire et technique. One hour.
- 3. Balzac. Two hours.
- 4. Histoire de la langue depuis le XVIe siècle. One hour.
- 5. Histoire de la Comédie en France. Two hours.
- 6. Exercises pratiques. One hour.

Candidates taking French only will take all the above courses; those taking French as a major along with another subject as a minor will omit 1 and either 2 or 4; those taking French as a minor will take either 3 or 5 and one of the one-hour courses.

Candidates who have not taken French Philology in their undergraduate course must take it as part of their M.A. course, except when French is taken as a minor. For further M.A. requirements, see page 335.

### B.—German.

# 1. German, Beginners' Course.

4 hrs. sess.; Mon., Tu., Th., Fri., at 2 (Women, R.V.C.); Mon., Tu., Th., Fri., at 4 (Men).....

Asst. Professor Lambert and Miss Meyer.

Texts:—(a) For B.A. students, Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Guerber, Märchen und Erzählungen, vol. I (Heath); Zschokke, Der tote Gast (Copp, Clark Co.).

(b) For B.Sc. students, Sheldon, Short German Grammar (Heath); Guerber, Märchen und Erzählungen, vol. 1 (Heath); German Science Reader (Heath).

Students intending to proceed to course 4 will be required to take a supplementary examination in September (for which no fee will be charged) covering the rest of the grammar and the following texts:

—Riehl, Die vierzehn Nothelfer (A. B. Co.); Moser, Der Bibliothekar (Heath); Schrakamp, Ernstes und Heiteres (A. B. Co.). Arrangements will be made by which students will be enabled to do this work by correspondence. This examination will take place at the time of the regular supplemental examinations.

# 2. German Language.

4 hrs. sess.; Mon., Tu., Th., Fri., at 2 (Women, R.V.C.);

# 3. German Science Reading Course.

### 4. German Language.

4 hrs. sess.; Mon., Tu., Wed., Fri., at II (Women, R.V.C.); Fri., at 9; Tues., at 10; Thurs., at II; Wed., at 12 (Men)....

Asst. Professor Lambert.

Texts:—Horning, German Composition; Schiller, Die Jungfrau von Orleans (Holt); Scheffel, Der Trompeter von Säkkingen (Heath); Goethe, Egmont (Macmillan); Keller, Bilder aus der Deutschen Literatur (American Book Co., edition 1905).

# 5. German Literature (Nineteenth Century).

Prerequisite:—I or 2, and 4.

4 hrs. sess.; Mon., Wed., Th., Fri., at 10.......Professor Walter. (Given in 1922-23.)

Texts:—Kleist, Prinz Friedrich von Homburg (Ginn); Grillparzer, Sappho (Ginn); Hebbel, Agnes Bernauer; Heine, Prose (Oxford Univ. Press); Heine, Verse; Hauptmann, Die versunkene Glocke; Keller, Sieben Legenden; History of Literature, Nineteenth Century (Kluge).

Prose Composition: - Wiehr, German Composition (Oxford).

# 6. German Literature (Eighteenth Century).

Prerequisite:-I or 2, and 4.

4 hrs. sess.; Mon., Wed., Th., Fri., at 10.......Professor Walter. (Given in 1921-22.)

Texts:—Lessing, Emilia Galotti (Ginn); Lessing, Nathan (A. B. Co.); Goethe, Iphigenie (Pitt Press); Schiller, Piccolomini and Wallenstein's Tod; Kluge, Geschichte der deutschen Literatur. Prose Composition:—Wiehr, Prose Composition (Oxford University Press).

N.B.—In order to be admitted to courses 5 and 6 a student must know German well enough to take lectures delivered in German and express himself in German with some degree of fluency and correctness.

# 7. Geschichte des deutschen Trauerspiels.

# 8. German Composition.

# 9. Mediaeval German Literature and Philology.

Texts:—Bachmann, Mittelhochdeutsches Lesebuch (Fæsi and Beer, Zurich); Behaghel, Die deutsche Sprache.

# 10. Entwicklung der deutschen Lyrik.

### HONOUR COURSE.

Prerequisites:-1 or 2, and 4.

Third and Fourth Years:-5, 6, 7, 8, 9, 10.

The German language alone is used in class instruction, and, in order to obtain honours, candidates must be able to speak German fluently.

# GRADUATE COURSE.

The following resident Graduate Courses will be offered in 1921-22:—

### M.A. Courses.

- Comparative Literature (see English section, course 16). Two hours weekly.
- 2. Goethe. Two hours.
- 3. Geschichte des deutschen Romans. Two hours.
- 4. Grillparzer's Dramen. One hour.
- 5. Praktische Ubungen. One hour.

Candidates taking German only will take all the above courses; those taking German as a major along with another subject as a minor will omit 1 and either 2 or 5; those taking German as a minor will take either 3 or 4 and one of the one-hour courses.

Candidates who have not taken German Philology in their undergraduate course must take it as part of their M.A. course, except when German is taken as a minor. For further M.A. requirements, see page 335.

# DEPARTMENT OF ORIENTAL (SEMITIC) LANGUAGES AND LITERATURE.

Professors:— { C. A. Brodie Brockwell. A. R. Gordon.

Assistant Professor:—G. Abbott-Smith.

Lecturer:—W. C. Graham.

- 2. Hebrew Grammar, Composition and Selected Biblical Texts. 4 hrs. sess.; Mon., Tu., Th., Fri., at 5......Professor Brockwell.
- 3. Hebrew Readings in the Old Testament.
  4 hrs. sess.; Mon., Tu., Wed., Fri., at 11.....
  Prerequisite:—2. Professor Brockwell and Rev. W. C. Graham.

150	FACULTY OF ARIS					
5.	Literature of the Jewish Hellenists:—Prophetic (Hebrew) Texts. 2 hrs. sess					
	Prerequisite:—2.					
6.	Arabic and Aramaic. 4 hrs. sess					
7.	Biblical and Post-Biblical Hebrew Texts. 4 hrs. sessProfessor Brockwell and Rev. W. C. Graham.					
8.	Hebrew Texts. 4 hrs. sess					
9.	History of the Greek and Roman Periods.  1 hr. sess					
10.	Arabic and Aramaic, or Phoenician, or Ethiopic, or Transliterated Assyrian Texts.  3 hrs. sessProfessor Brockwell and Rev. W. C. Graham.					
11.	Semitic Archaeology, or the History of Jewish Literature (from the close of the Old Testament Canon to A.D. 1500), or The Comparative Philology of the Semitic Languages, or Semitic Myths and Social Institutions.					
	3 hrs. sess					
	Honour Course in Semitics.					
	Prerequisite:—2.  Third Year:—8, 9, 10, 11.  Fourth Year:—The same, continued.					
	DEPARTMENT OF PHILOSOPHY.					
	Professor:—W. Caldwell.  Associate Professor of Logic and Metaphysics:—  J. W. A. Hickson.  Associate Professor of Psychology:—William D. Tait.					
	For Undergraduates.					
-	Elementary Psychology.					
1.	2 hrs. sess.; Mon., Wed., at 10					

Text-book:-Warren, Human Psychology.

3	Introduction to Philosophy.  2 hrs. sess.; Tu. 10, Th. 11
4.	Moral Philosophy.
·	4 hrs. sess.; Mon., Tu., Th., Fri., at 12Professor Caldwell.
5.	Greek Philosophy.
	2 hrs. sess.; Mon., Tu., at 5
6.	History of Modern Philosophy.
	4 hrs. sess
	1st term: From the Renaissance to KantProfessor Hickson. 2nd term: From Kant to the Present TimeProfessor Caldwell.
7.	The Theory of Scientific Method.
	2 hrs. sess.; Wed., 12, Fri., 12
8.	sions. [Introductory Laboratory Course].
	4 hrs. sess
	For Undergraduates and Graduates.
9.	Advanced Moral Philosophy.
	2 hrs. sess.; Mon., Tu., at 4
10.	Theory of Knowledge and Metaphysics.
	4 hrs. sess
II.	Main Currents of Contemporary Philosophy.
	2 hrs. sess.; Tu., Th., 3
	It would be advisable to take Course 6 with this, if it has not been taken previously.
12.	Social Psychology.
	4 hrs. sess
	Lectures, prescribed readings and reports.
13.	Problem of Causation, Including Mind and Body, Since
	1600 A.D.; Lectures, Readings and Discussions.
	2 hrs. sess
14.	Philosophy of Religion; Lectures, Readings and Discussions.  2 hrs. sess
15.	The Critical Philosophy of Kant; Lectures, Readings and Discussions.
	2 hrs. sessProfessor Caldwell or Professor Hickson. (In alternate years with course 5.)

16.	Experimental Human Psychology (Advanced Laboratory Course).  2 hrs. scss.; Tu., Th., at 4
	2 hrs. sess.; 1tt., 1h., at 4rrolessor 1an.
17.	Applied Psychology; Lectures and Prescribed Readings.  2 hrs. sess. (Not given in 1921-22)
18.	Abnormal Psychology.  As in Fourth Year Medicine
19.	Educational Psychology; Lectures, Prescribed Readings and Reports.  4 hrs. sess
	Honour Course.
subj phy Eng	Prerequisites:—1, 2.  Third Year:—Any three full courses from 4 to 19 inclusive.  Fourth Year:—Any three full courses from 4 to 19 other than se already selected. In addition, a course in any of the following jects:—education, history, economics, English literature, physics, siology, zoology—is required in each of the third and fourth years.  The Philosophy requirements for honours in Philosophy and glish, and Philosophy and German, are eight hours selected from 4 to in each of the third and fourth years.
	Primarily for Graduates.
20.	Psychological Laboratory; Experimental Investigations in Human Psychology.  Professor Tait.
21.	Seminary in Psychology.
21.	Subject: Psychology of ReligionProfessor Tait.
22.	Philosophical Seminary:—Idealism, Materialism and Realism; Lectures, Papers, and Discussions.  2 hrs. sess
23.	Ethical Seminary.
	2 hrs. sess

PHYSICS 153

### DEPARTMENT OF PHYSICS.

DIRECTOR:—A. S. Eve.
PROFESSOR:—L. V. KING.

ASSOCIATE PROFESSORS:—

A. N. SHAW.

A. N. SHAW.

H. E. REILLEY.

V. HENRY.

G. H. HENDERSON (absent).

R. J. CLARK.
E. S. BIELER (absent).

L. A. SMITH.

L. H. NICHOLS.

W. C. QUAYLE.

M. CROWE.

M. CAM.

A. V. DOUGLAS.

### 1. General Course.

# 2. Heat, Sound and Light.

2 hrs. sess.; Tu., Th., at 11; 2 hrs. lab.........Professor Shaw. Text-books:—Duncan and Starling's Heat, Light and Sound (Macmillans); Laboratory Manuscripts (Renouf Publishing Co.).

# 3. Electricity and Magnetism.

2 hrs. sess.; Mon., Fri., at 10; 2 hrs. lab.......Professor\_Gray. Text-books:—Duncan and Starling's Electricity and Magnetism (Macmillan); Laboratory Manuscripts (Renouf Publishing Co.).

# 4. Dynamics, Statics and Hydrostatics.

# 5. Properties of Matter.

# 6. Statics, Dynamics of a Particle and Rigid Dynamics.

7. Electrical Measurements.

7•	2 hrs. sess.; Wed., at 10; 5 hrs. lab
8.	Light.*  1 hr. sess
9.	Theory of Heat.*
	1 hr. sess
10.	Electromagnetic Theory.
	2 hrs. sess
II.	Mathematical Physics.
	2 hrs. sess
12.	Molecular Physics.
	2 hrs. sess
13.	Radioactivity.*
ŭ	2 hrs., 2nd term
14.	Vector Analysis.
,	2 hrs., 1st term
15.	Advanced Statics, Dynamics, Hydrodynamics and Sound.
	2 hrs. sess

<sup>\*</sup> With laboratory experiments in the fourth year.

Hydrodynamics and Sound (Deighton Bell).

ZOOLOGY I55

# 

# 17. Quantum Theory and Relativity.

I hr. sess......Professor Eve.

# 18. Advanced Electricity and Magnetism.

# HONOUR COURSE IN MATHEMATICS AND PHYSICS.

Prerequisites:—Mathematics 2; Physics 1 or 2.

Second Year:—Mathematics 3, 4, 5; Physics 3, 4; Chemistry 1;

English 3.

Third Year:—Mathematics 6, 11; Physics 5, 6, 7 and 8 or 9.

Fourth Year:—Mathematics 7, 8; Physics 8 or 9, and 10, 11, 12.

### GRADUATE COURSES.

Physics courses selected from 13-18, thesis, etc.

### DEPARTMENT OF ZOOLOGY.

Professor:—Arthur Willey.
Assistant Professor:—J. Stafford.
Lecturer:—M. Notkin.

# 1. Comparative Anatomy.

As in first year Medicine.

# 2. Elementary Zoology.\*

# 3. Zoology of Invertebrata.†

<sup>\*</sup>Zoology 2 will not exempt from Zoology 1.

<sup>†</sup> This is a prerequisite for students who may hereafter wish to undertake zoological work at the Marine Laboratories under the Biological Board of Canada.

4.	Historical Zoology.  1 hr. sess	Willey.
5.	Zoology of Vertebrata.  2 hrs. sess	Willey.
6.	Comparative Embryology. 2 hrs., 2nd term	Wille <b>y</b> .
	Honour Course in Biology.	

Prerequisites:—Botany 2, Chemistry 1, Zoology 2. Third Year:—Botany 4 and 6; Zoology 3 and 4. Fourth Year:—Botany 7 and 8; Zoology 5 and 6.

### TIME TABLE OF LECTURES, 1921-22

### FACULTY OF ARTS.

Hour.	FIRST YEAR MEN.	FIRST YEAR WOMEN.	SECOND YEAR.	Third and Fourth Years.
Lectures at 9, omitting Friday.	Mathematics,1.	English, 1 and 2. (Comp., Tues., Lit., Mon. and Wed.) Hist., 1 (Fri.).	French, 3. German, 4—Men (Fri.)	Geology, 1. (Mon., Wed., Fri.). Gréek, 7 and 8. Economics, 12 (Tu.,W.) History, 9. Geology, 5 (Tu., Th.),
Lectures at 10, omitting Tuesday.	German 1 (b). Latin, 1. Hist., 1 (Tues.)	French, 1.	Botany, 2 (M., W.). Zoology, 2 (M., W.). Logic, 2 and Psychol., 1. German,4—Men (Tu.).	English, 7 (Tu., Th.). English 17 and 18 (M.F.). Economics, 4, 6, 8, 11. Latin, 3 and 4. History, 3. Mathematics, 4. German, 5 and 6. Botany, 4 (Tu., Fri.). Physics, 3 (Mon., Fri.).
Lectures at 11, omitting Thursday.	French, 1. Hist., 1 (Thur.).	Latin, 1.	Econ., 1 (M., Fri.). History, 2 (T., W.). German, 4—Women. German, 4—Men (Th.). Mathematics, 3. (M., W., Fri.).	English, 6 (Tu., Th.). Greek, 5 and 6. Economics, 2. Hebrew, 3. English, 12 (Wed., Th.); 10 (Mon., Fri.). Physics, 2 (Tu., Th.).
Lectures at 12, omitting Wednesday.	English, 1 & 2. (Comp., Mon., Lit., Tues, & Thurs.).	Mathematics, 1. Hist., 1 (Wed.).	Latin, 2. German, 4—Men (W.).	English, 11 (M., W.). English, 16 (Tu., Th.). Philosophy, 4. French, 6 & 7.
Lectures at 2, omitting Wednesday.	Physics, 1. (Tu. & Fri.).	German, 1 & 2.	Chemistry, 1 (Mon., Tues. & Thurs.).	English, 13 (Tu., Fri.). English, 14 (Mon., Th.). Geology, 2 (Th., Fri.). Political Science, 3. Zoology, 3 (Tu. & Fri.).
Lectures at 3, omitting Wednesday.	Physics, 1. (B. Sc.) (Tu. & Fri.) Greek, 1 & 2.	Physics, 1. (Tues. & Fri.). Physical Educa- tion. (Mon. & Thurs.).	English Lit., 4 (Mon., Thurs. and Fri.). English Comp., 3 (Tues.).	Economics, 5, 7, 9, 10. Chemistry, 2. Philosophy, 11 (Tues. & Th.). Astronomy (Math. 11).
Lectures at 4, omitting Wednesday.	German, 1 (a) & 2.	Greek, 1 & 2.	Greek, 3 & 4.	Philosophy, 9 (M., Tu.) Philosophy, 12 (Tu. & Th.). English, 9. (Tues. & Fri.). English, 5. (Mon. & Thurs.). Comp. Philology, 5. (Tues. & Thurs.) Education, 1 (Tu. & Th.)
Lectures at 5, omitting Wednesday.			Hebrew, 2.	Education,2 (Tu. & Th.) Philosophy, 5 (M., Tu.).

Laboratory periods and hours for Honour classes will be arranged at the commencement of the session.

Physical Education is compulsory for all students of the first three years, although instruction is provided for those of the first two only at present. Hours will be arranged for groups or classes subject to the requirements of the time table above.

The hours for Physical Education for women students of the second, third and fourth year will be arranged by the department.

# EXAMINATION TIME TABLES-Faculty of Arts.

SCHOLARSHIP AND SUPPLEMENTAL EXAMINATIONS, SEPTEMBER, 1921.

Supp. to Third Year Sessional.*	English, 6.	English, 9 & 18.	History, 9.	History, 7.	French, 6.	Philosophy, 4.	Maths. 4. Education, 2.	Education, 1	History, 3.	Chemistry, 2, 6.	Chemistry, 9. Economics, 2.	Economics, 3. Physics, 3.
Scholarships (Third Year).	English Literature (Shakspere and Milton).	English Literature (Ruskin and Arnold).	Latin Texts.	Latin Composition, and Sight, and Roman History.	French Books.	French Composition and Sight.	Animal biology. Analytical Geometry and Trigonometry.	German Books. Plant Biology. Logic.	Greek Texts: Physics. Psychology.	Chemistry, Greek Composition, and History. Sight Translation. Economics.	Infinitesimal Calculus, German Comp. and Sight.	Economics, History and English Composition. Philosophy (Berkeley).
Supp. to Second Year Sessional.	English, 3.	English 4.	Latin, 2 (Books). Economics, 11 Ccm.	Latin, 2 (Composition and Sight Translation). Econ. Geog. 11 Com.	French, 3, 4.	Philosophy, 3. Physics, 2. Semitics, 2.	Maths. 3 (Algebra), History, 2,	Philosophy, 1. Botany, 2. Maths. 11 Com.	Greek, 3 & 4 (Books). German, 4. Philosophy, 2. Accountancy, II Com.	Greek, 3 & 4 (Composition and Sight Translation and Lion) Geology, 1. Zoology, 2 & 6.	Maths., 3 (Conics and Solid Geometry). Economics, 1.	Chemistry, 1.
Second Year Scholarships.	English Literature (Shakspere);	English Literature (Macaulay and Scott).	Latin Books.	Latin Composition, Sight Translation and Roman History.	French Texts.	German Texts.	Geometry (Major); Geometry and Trigonometry (Minor).	French Composition and Sight.	Greek Books, Algebra (Minor), Algebra and Trigonometry (Major).	Greek, Composition, Sight Translation, and History.	German Composition and Sight.	Physics.
Supp. to First Year Sessional.	English, 1.	English, 2.	Latin, 1 (Books).	Latin, 1 (Composition, and Sight Translation.).	Pre 16 h. 1, 2.	History, 1.	Maths. 1 (Algebra).	Maths. 1 (reometry).	Maths. 1 (Trigonometry). Accorptancy, I Com.	Physics, 1.	(rreek, 1 × 2 (Books). (rerman (1, (a), 1, (b),	Greek, 1 & 2 (Composition and Sight).
Hour.	90 0	2 00	00 6	00 7	00 0	2 00	00 6	2 00	00 6	2 000	00 6	7 00
	51.		1 2				~1				36	
DATE.	Monday		1 resday		Wednesday		Liursday		l riday		Monday	

 $^{\ast}\mathrm{Periods}$  tor other subjects to be arranged at the time of the Examination.

# EXAMINATION TIME TABLES.

# FACULTY OF ARTS.

FIRST TERM EXAMINATIONS, 1922.

	First Year	Second Year		
Tuesday, January 17, 1922—				
9-12 A.M.	Geometry, 1. Algebra (Com.)	Philosophy, 2. French, 3.		
2-5 P.M.	Greek, 1 & 2. Physics, 1 (B.Sc.).	Zoology, 2. English 4.		
Wednesday, January 18-				
9-12 A.M.	English, 2 & Com.	Latin, 2.		
2-5 P.M.	Latin 1. Economics (Com.).	Philosophy, 1. Economics (Com.).		
Thursday, January 19-				
9-12 A.M.	German, 1 & 2. Accountancy.	Greek, 3 & 4.		
2-5 P.M.	History, 1. Spanish.	German, 4. Spanish.		
Friday, January 20-				
9-12 A.M.	French, 1.	Economics, 1. Mathematics, 3.		
2-5 P.M.	Physics, 1 (B.A.). Econ. Geog. (Com.).	Hebrew, 2. Chemistry, 1, 3 (a).		
Saturday, January 21-				
9-12 A.M.	Trigonometry, 1. Geom. & Trig. (Com.).	History, 2. Mathematics (Com.).		

### **EXAMINATION TIME TABLES**

# FACULTY OF ARTS.

### SESSIONAL EXAMINATIONS, 1922.

Morning examinations commence at 9; afternoon examinations at 2.

(Numbers do NOT indicate years, but the number of the course in the Department.)

Date.	Forenoon.	Afternoon.
Tuesday, April 18	Latin, 5. Philosophy, 2 & 3. Maths., 7, (Calculus). Physics (1 Yr. Com.). Educ. Psychology. Economics (II & HI Yr. Com.).	Latin, 5. History, 5. Chemistry, 3 (a & b). Zoology, 6
Wednesday, April 19	Accountancy (I, II & III Com.). Physics, 1. Hebrew, 1. Education, 1. English, 15.	Hebrew, 1. Maths., 5. Education, 2. Shipping (III Yr. Com.).
Thursday, April 20	Maths., 1 (Alg.). Maths., 2 (Geom.). French. 3 (a), 4 & 5. Geology, 1 & 10. German, 7. History, 9. Chemistry, 5. Zoology, 5. Philosophy, 8 & 12.	History, 1. French, 3 (b) Advanced & 5. Geology, 1. History, 9.
Friday, April 21	Econ. Geo. (1 Com.). Latin, 1 (Authors) & 3. Philosophy, 1. Economics, 11. English, 16 & 1H Com. German, 6. Physics, 3. Hebrew, 6. Maths. 6.	Physics, 2. Latin, 1 (Prose, etc.) & 3. Botany, 2. English, 7. German, 6. Chemistry, 6. Indus. Orgn. (11 & 111 Yr. Com.).
Saturday, April 22	French, 1 (a) & 2. Economics, 1, 2. Maths., 3 (Alg.). English (H Com.) & 10. Physics, 15. Botany, 5. Chemistry, 15. Hebrew, 5.	French, 1 (b) & Advanced. History, 2. Economics, 2. English, 12. Hebrew, 5. Econ. Geog. (II & HI Yr. Com.).

# SESSIONAL EXAMINATIONS—Continued.

DATE.	Forenoon.	Afternoon.
Monday, April 24	English, 1 & I. Com. Latin, 2 (Authors). Maths. (11 Com.). Philosophy, 4 & 7. French, 7. English, 20. Physics, 12.	Latin, 2 (Prose, etc.). Philosophy, 4 & 7. French, 7. Greek, 5. Chemistry, 2. English, 2 & 11.
Tuesday, April 25	Chemistry, 1 & 13. Economics, 3. English, 17. Econ. of Transport (III Com.). Spanish (1 & II Yr. Com.). Spanish (Advanced).	Maths., 1 (Trig.). Maths., 2 (Alg.). Economics. 3. English, 13. Geology, 2. Zoology, 3. Spanish (I & II Yr. Com.).
Wednesday, April 26	Greek, 1. English, 4. Economics, 9. Physics, 5. Maths. (Alg.) (I Yr. Com.).	Commercial Law (II Com.) Greek, 1. English, 3 & 19. Chemistry, 7.
Thursday, April 27	Business Organiz.(II Com.). German, 1 & 2. Greek, 3 & 4 English, 9. Chemistry, 8. Economics (I Yr. Com.).	German, 1, 2 & 3. Greek, 3 & 4. Greek, 5. English, 5. Banking (III Yr. Com.).
Friday, April 28	German, 4. Philosophy, 6. Chemistry, 10. Economics, 12. French, 8.	German, 4. English, 6.
Saturday, April 29	Geology, 5. Chemistry, 9. Maths., 8. Greek, 7.	Geology, 4. Greek, 7.
Monday, May 1	Maths. 4 (Calculus). History, 7 & 8. Physics, 7. English, 14. Botany, 4 & 6.	Maths., 4 (Conics). History, 10. Maths., 7 (Anal. Geom.). Botany, 4 & 6.

# THE TRAINING OF TEACHERS.

#### THE HIGH SCHOOL DIPLOMA.

The Protestant Central Board of Examiners of the Province of Quebec have laid down the following requirements for the High School Diploma:—

- 1. Graduation from some Canadian or other British University with degree courses that are considered by the Central Board satisfactory preparation for the work of the teacher.
- 2. The successful completion of courses 1 and 2 in the Department of Education.
- 3. The possession of the Strathcona Certificate, Grade B, after completion of a course in physical training. Full particulars on page 329. Miss Cartwright, Dr. Lamb.
- 4. Successful completion of at least fifty half-days of practice teaching and criticism lessons under expert supervision (unless the candidate holds an intermediate diploma or shows an equivalent in successful teaching experience which would be accepted by the Central Board).

Candidates for this, the highest teaching diploma of the Province, are recommended to take courses I and 2 in the Department of Education during the last two years of their undergraduate course, preferably Course I in the third year and Course 2 in the fourth year.

# ELEMENTARY, INTERMEDIATE AND KINDERGARTEN DIPLOMAS.

The training for these diplomas is given at Macdonald College. (See Macdonald College Announcement.)

### COURSES FOR TEACHERS OF SPECIAL SUBJECTS.

(Given under the Teachers' Training Committee.)

French. A summer school for teachers of French leading to a Specialist Diploma recognized by the Council of Public Instruction.

School Art. A course of twenty lessons on the principles and practice of art in relation to schoolwork, comprising: brushwork, drawing, blackboard work, elements of design. Prof. Armstrong, Sat., 9-10.30 or 11-12.30.

Kindergarten Assistants. A two-session course held in Montreal and leading to a Kindergarten Assistant's Diploma, according to the regulations of the Protestant Committee of the Council of Public Instruction. This diploma is accepted for entrance to the Kindergarten class at Macdonald College. (This course is conducted by the School for Teachers, Macdonald College.)

Particulars of the above courses, which are published separately, may be obtained on application to the Registrar.

Physical Education. A two-years' course leading to a Diploma for Teachers in Physical Education recognized by the Council of Public Instruction. See page 331. (This course is given under the Department of Physical Education.)

# SCHOOL OF COMMERCIAL STUDIES.

(OPEN TO BOTH MEN AND WOMEN.)

# Staff of Instruction.

DIRECTOR-SECRETARY:—ASSOCIATE PROFESSOR R. M. SUGARS.

English $ \begin{cases} \text{Dr. Cyrus Macmillan.} \\ \text{Associate Professor G. W. Latham.} \\ \text{Mr. A. S. Noad.} \end{cases} $
MATHEMATICS ASSISTANT PROFESSOR HERBERT TATE. POLITICAL ECONOMY ASSISTANT PROFESSOR B. K. SANDWELL. HISTORY OF COMMERCE ASSISTANT PROFESSOR B. K. SANDWELL.
French $\left\{                               $
Spanish Associate Professor R. M. Sugars.
INDUSTRIAL ORGANIZATIONASSISTANT PROFESSOR R. THOMPSON. BUSINESS ORGANIZATIONASSISTANT PROFESSOR R. THOMPSON. CHEMISTRYPROFESSOR N. N. EVANS. INDUSTRIAL CHEMISTRYSPECIAL LECTURERS.
Economic Geography and Economics of Transport $Assistant Professor B. K. Sandwell.$
Insurance

The School of Commercial Studies offers a systematic course of study, embracing the principal commercial sciences, and designed, with due modifications in each case, to prepare students for different business careers and for the profession of Chartered Accountant.

The course extends over three years, and students who successfully complete it will be granted the Degree of Bachelor of Commerce (B. Com.).

# COURSE FOR THE DEGREE OF BACHELOR OF COMMERCE.

Candidates for entrance must qualify by passing the examination prescribed for entrance to the Faculty of Arts (B.A. or B.Sc. course). For particulars, see pages 48 and 49.

The course of instruction is as follows:-

#### FIRST YEAR.

- 1. English (4 hours).
  - (a) English Literature.
  - (b) English Composition.
- 2. Mathematics (4 hours).
- 3. French or Spanish.
- 4. Economic Geography (1 hour).
- 5. Accountancy (3 hours).
- 6. Commercial Law (1 hour).
- 7. Political Economy (2 hours).
- 8. Physics (4 hours).

# SECOND YEAR.

- I. English (2 hours).
- 2. Mathematics (4 hours).

(Commercial and Actuarial Mathematics.)

- 3. French or Spanish.
- 4. Accountancy (3 hours).
- 5. Chemistry and Industrial Chemistry (2 hours).
- 6. Commercial Law (1 hour).
- 7. Business Organization (1 hour).
- 8. Economic Geography (1 hour).
- 9. History of Commerce (1 hour).

Also one of the following two groups of economic subjects (as may be assigned), to be taken in conjunction with the Third Year. These groups are given alternately, so that a student will take in the third year what he does not take in the second.

### 1. Economics.

- (a) The Theory of Distribution.
- (b) Labour Problems and Industrial Legislation.

### 2. Economics.

- (a) The Theory of Exchange.
- (b) Money, Banking, Investments.

## THIRD YEAR.

- r. English (1 hour).
- 2. Investigation Practice (1 hour).
- 3. French or Spanish (4 hours).
- 4. Fire and Marine Insurance (1 hour).
- 5. Industrial Organization (1 hour).
- 6. Commercial Law (1 hour).
- Economic Geography and Economics of Transport (I hour),
- 8. One of the two groups of economic subjects (given under "Second Year") and which will be taken in conjunction with Second Year students, the groups alternating or rotating, so that any student will take in the Third Year what he did not take in the Second (2 hours).
  - (b) Additional groups, one or other of which must be taken.

# 1. Accountancy.

- (a) Theoretical Work, Problems and Exercises in Accountancy and Auditing (3 hours).
- (b) Practical Work in Accountancy and Auditing (2 hours).

### Trade and Commerce.

(a) 1. A second modern foreign language (to be taken during at least two years, and to be preceded where necessary by a preparatory class),

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- 2. Specially selected courses in Economics.
- (b) Specially selected courses in Law.

N.B. A number of visits to factories will be arranged for each polerolar year. These visits will be obligatory for Third Year students.

To obtain the diploma of Licentiate in Accountancy, which are with a right of entrance into the Association of Accountants of Moureett (Charterell Accountants), or into the Institute of Amounts, and Amburs of the Province of Quebec, the student to the state of the Province of State of the Student to the state of the Province of State of the Student to the state of the student to the state of the state of

- (i) He must be a "" the examinations required for, and leading that the Degree of Buchelor of Commerce.
  - and the most arrest the course of studies prescribed in this programs of the X-rotation visited in-

(c) He must comply with all ordinances regulating the practical work to be done by students during the vacation.

(d) He must spend at least one year, subsequent to his obtaining the Degree of Bachelor of Commerce, in the office of a

practising accountant.

(e) He must then pass successfully a Final Examination in Accountancy and Auditing before a board of five examiners, composed as follows: the Director-Secretary of the School of Commercial Studies, two Professors of McGill University, a member of the Association of Accountants in Montreal, and a member of the Institute of Accountants and Auditors of the Province of Quebec; or before a board composed of four examiners, in case either of the Associations mentioned fails, after due notice, to nominate its delegate; or before a board composed of three examiners, in case each of the Associations mentioned fails to nominate its delegate.

This examination will be held during the last week of the month of October each year.

# POLICY OF THE SCHOOL.

In all subjects the work will be, as far as possible, of a practical nature. Thus the English courses will include a drilling in letterwriting, precis-writing, and the preparation of reports. The French, German and Spanish courses will aim at imparting facility in speaking as well as in writing, and will consider the special phraseology employed in business correspondence. The mathematical and scientific courses will deal in the fullest manner with applications to industry, commerce, and finance. In the lectures on History, Political Economy, and Commercial Law, the aim will be in the first case to trace the growth and development of modern ideas and institutions; next, to impart a knowledge of those general economic principles which are necessary to a full understanding of other subjects; in the third instance, to give the student such an acquaintance with the law as may be of real service in everyday business transactions. Finally, in Accountancy, the conditions and methods imposed by the increasing complexity of commercial, industrial and financial organizations will be considered in detail.

At the same time it will be among the chief concerns of the School of Commerce to accustom the student to the exercise of independent thought on all subjects, and particularly on those related to industry, commerce, and finance. To this end he will be expected from time to time to analyse his mental attitude towards each subject, to note the bearings of each on all other subjects, and to embody the results of his analysis in an essay or essays. These methods will compel him to call into play his independent judgment, and will thus

assist in developing those qualities of adaptability, self-reliance, and resourcefulness that make for leadership.

#### FEE FOR COURSE.

The sessional fee is \$150.00.

At the request of the students themselves, and by the authority of Corporation, an additional fee of \$12.00 will be exacted for the support of the Literary Society, the Undergraduates' Society, the Canadian Club, the Union, the "McGill Dàily," and Athletics.

# COURSES OF LECTURES.

# English.

The fundamental purpose of the course in English is to train students to deal with such problems of expression as arise in commercial life. Considerable attention will be given to business correspondence and other forms of commercial writing. The interests of students, however, are best served, even for these special purposes, by a more general training in English. These courses will, therefore, include practice in various kinds of writing, as well as a study of English literature, in which a large amount of reading is required. As far as possible, the writing prescribed for students will be related to the work they are doing in other classes.

The following is a brief outline of the work:-

# FIRST YEAR.

English I. English Composition, one hour a week. Weekly individual conferences with the instructor are required. Mr. Noad.

English 2. English Literature, as prescribed for students in the Faculty of Arts. A general outline course from Chaucer to Kipling. Readings and fortnightly individual conferences. Two hours a week. Professor Macmillan and an assistant.

#### SECOND YEAR.

English 3. English Composition. A continuation of English 1 above.

This course will include some practice in Argumentation and Debating, and in the making of oral reports. Two hours a week. Professor Latham and an assistant.

### THIRD YEAR.

English 3a. English Composition. An advanced course dealing with the arrangement of material in commercial reports, etc. One hour a week. Professors Macmillan and Latham and assistants.

Professor Latham will have the general direction of the English Composition courses. The classes, if large, will be divided into small sections. Students who fail in English I must repeat the course.

# French.

The study of French will be first approached from the literary side, both in order to increase its value to the student as an element of culture and in order to afford a sufficient background for the commercial studies which are to come later. These commercial studies will begin in the second year and will comprise about half of the work done in that year. In the third year the work will be almost entirely of a commercial character.

The following is a synopsis of the work:-

### FIRST YEAR.

The student will have a choice between:-

- (a) The Advanced Arts Course in French, as indicated on page 144; and
- (b) The Ordinary Arts Course in French (see page 144), strengthened by tutorial class work.

### SECOND YEAR.

In this year the work will be divided into two sections:-

I. A selected Arts course. (See page 144.)

II. Work of a commercial nature, embracing:-

Commercial Correspondence:—Letters of introduction, offers of services, inquiries, acceptance of offers, execution of orders, circulars, invoices and account sales; study of trade reports and commercial documents; study of contracts—bills of sale, mortgage deeds, bills of lading, charter-party, insurance contracts.

## THIRD YEAR.

During this year one hour a week will be devoted to a study of modern French literature. The remaining three hours will be taken up with commercial work, which may be conveniently divided into:—

(a) Commercial correspondence, study of trade reports, etc., in continuation of work begun in the second year; and (b) colloquial French.

(The text-book to be used for this part will be P. Clerget, Manuel d'économie commerciale.)

The students will be called upon to take part in discussions, which will follow addresses to be delivered by French speakers on commer-

cial and industrial subjects. Visits, too, will be organized to French commercial and industrial establishments, and all explanations during these visits will be given in the French language.

Class instruction in the three years will be given in French.

## Mathematics.

### FIRST YEAR.

In this year the work will be that prescribed for First Year Arts students and will afford a sound training in general mathematics.

# SECOND YEAR.

The second year will be devoted to a study of Commercial and Actuarial Mathematics.

The subject-matter dealt with will embrace: Compound interest; annuities-certain; the amortization schedule; the valuation of bonds; the mortality table and problems involving the elements of mortality, such as life annuities and the various insurance benefits.

# Accountancy.

The accountancy work has been carefully graduated and correlated, and is intended not merely to fulfil its part in a general scientific business training, but also to prepare and assist those who purpose taking up accountancy as a profession.

No previous knowledge of bookkeeping is assumed or required; the subject is developed rapidly along the lines that prevail in practice.

# FIRST YEAR.

The following plan will give a good indication of the ground covered in this year:—

The principle of debit and credit; books of original record, how they should be kept, and how utilized; documents employed in connection with them; sales, purchases, consignments, and how to handle them; returns inwards and returns outwards; subsidiary ledgers, and controlling accounts to represent them in the general ledger; special forms of cash-book required to facilitate such control; notes and drafts, discounting and renewal of notes, and the proper methods of treating these operations in the accounts; single entry, how to change to double entry, and vice versa; distinction between revenue and capital expenditure; income statement and balance sheet; single proprietorships and partnerships.

The student will be required to sift and classify his detail, write up all the books of record and account mentioned, and focus results of the various transactions or operations into the final statements.

#### SECOND YEAR.

The subject matter for this year will be as follows:-

Special Problems that occur in connection with Partnerships.—The deed 'of partnership; rights of partners; effects of dissolution; methods of distributing profits; the bringing in of other partners; goodwill; transformation of a firm into a corporation; departmental accounts; organization and records required; sectional balancing of ledgers and systems of internal check; analysis of expenses; distribution of expenses over departments; results in each department; comparison of these results with those shown in other periods; manufacturing accounts; the elements of cost accounting; records to take care of purchases; the voucher system; depreciation and methods of providing for it; allowances and reserves; sinking funds.

## THIRD YEAR.

The work of the third year will embrace:-

- (a) Theory of the Balance Sheet; its form and elements; valuation of these elements; comparative balance sheets; double account system of balance sheet; the income statement.
- (b) Corporation Finance. Development of the corporation; status and interior organization of the corporation; how to incorporate; promotion and underwriting; stock and bond issues; temporary loans; initial operations; earnings and their disposition; secret reserves; betterments; surplus; control exercised by directors and majority stockholders; its abuse; consolidations; insolvency and receiverships; re-organizations; different bases of capitalization.

Problems connected with Stock and Bond Issues; bonus stock; treasury stock; watered stock; discount and premium on bond issues.

- (c) Branches, Consolidations, Mergers; accounts of head-office and of branches; consolidated statements and balance sheets; control of stock and bond issues; minority holdings; advances to subsidiaries; inter-company profit; capital assets and capital liabilities; initial surplus and goodwill.
- (d) Cost Accounting.—General considerations, the advantages of a cost system; the control of stores, purchasing and issuing, the running inventory; quality, remuneration, and control of labour; overhead expenses or "burden," methods of distributing it and their limitations; waste and leakage in factories; idle time; calculation of machine rates; connection of costs records with general accounts.
- (e) Accounting in Insurance Companies.—Sources of income; expenditures to be incurred; registers and their uses; control of agents; reserve and its constitution; sources of profit; presentation of accounts; indications of strength or of weakness.

- (f) Bank Accounts.—Classification of operations; sources of entries in books; registers, diaries, ledgers; correlation of departments; cash journal or daily summary; published accounts.
- (g) Municipal Accounts.—Principles involved; current methods of reporting statistics; inadequacy of these methods; methods now recommended; sources of revenue; estimated revenue; appropriations; balances; various forms of municipal debt; municipal bonds; contract and order liabilities; sinking-funds; form of balance sheet recommended.
- (h) Insolvency Accounts.—Various schedules adopted; statement of affairs; realisation and deficiency account; deficiency statement.
- (i) Trustees' Accounts.—Executorships and administratorships; accrued claims; accrued expenses; corpus and income.
- (j) Peculiarities in the form of accounts required in other undertakings.
- (k) Auditing.—General principles applicable to all undertakings; special considerations applicable to particular concerns; laboratory practice in auditing.

# Economics.

#### FIRST YEAR.

Elementary Economics, including analysis of the production, exchange, distribution and consumption of wealth.

# SECOND OR THIRD YEAR.

# (Given in 1921-22.)

Economics of Finance. — Money, exchange, banking, financial organization, credit, public finances, taxation.

Investment.—Nature and variety of securities; government securities; municipal bonds; railroad securities; other corporation securities; mortgages; analysis of financial reports; the stock market; management of investments; rights and duties of the shareholder; default and foreclosure; reorganization.

# (Given in 1922-23.)

Economics of Industry.—Labour organization; industrial legislation; capital organization; international relations of labour and capital.

Industrial History.—Development of the productive and distributive organization since the Industrial Revolution, with particular reference to problems connected with the relations of capital, labour and the State.

# Industrial Organization.

A course of lectures for the second and third years and dealing with the following subject-matter:—

The launching of an industrial enterprise; the planning of a factory; departmental functions; the purchase and control of raw materials; labour, and its control; wage systems; welfare work; power and its transmission; the reorganization of a factory; the committee system; the location of industries; principles of management; types of management; departmental relations; standardization and equipment; standardised operations; written standard-practice instructions; adequate records; efficiency rewards.

# Business Organization.

Origin and growth of business organization.—Different methods in which business organization may be classified; useful inferences to be drawn from each method of classification; tests of efficiency in business organizations; social, economic and legal aspects of the following types of organization:—the Single Proprietorship; the Paftnership; the Joint-stock Company; the Corporation; Agreements, Pools; Kartells; Simple Business Trusts; Combination Trusts; Community-of-interest Organizations; Securities-holding Organizations, Amalgamations, and Mergers.

# Economic Geography.

#### FIRST YEAR.

General.—The solar system; epochs in the history of the earth; divisions of the earth's surface into land and water; elements of geology; effects of sun's heat and rays; effects of altitude; effects of moisture, temperature and winds; ocean currents; mankind, races and characteristics; distribution of natural products; centres of population, and reasons for their development; chief commercial products; chief traffic channels and movements.

Canada.—General configuration; climatic conditions; natural products—agriculture, animal products, products of the mine, of the sea, of rivers; population centres, their history and growth.

Canadian Production for Home Consumption.—Location of important industries, with reasons; markets; means of distribution; cost of distribution; means of improvement and development of established industries; means of creating new industries.

## SECOND AND THIRD YEARS.

# (Given in 1922-23.)

Canadian Export Trade.—Production for export; raw materials; manufactured products; foreign markets; means of creating new

markets; nature of Canadian export markets—distance, climate, population, habits, credit, currency, government, tariffs, transport facilities, competition.

Canadian Import Trade:—Products imported; countries of origin; purposes for which employed; direct consumption, further manufacture; reimportation of Canadian raw materials manufactured abroad.

Economics of Transport: Water Transport.—Ocean shipping; services, rates and organization; shipping policies of leading commercial nations: internal water transport in North America.

Economics of Transport: Land Transport.—Organization and service of railway traffic departments; systems of rates; car service, demurrage and claims; legislative regulation; motor transport; light railways.

# History of Commerce.

SECOND AND THIRD YEARS.

(Given in 1921-22.)

Review of Commerce from the Dawn of Civilization to the Present Time, tracing the influence of physical, economic, political and technical factors in its development.—Ancient and mediæval commerce; effect of revival of learning and discovery of America; commencement of modern commerce; the industrial revolution and recent commerce; special details in history of commerce of Canada and other British Dominions; lives of eminent leaders of commerce from the Fugger family to the present time.

#### Insurance.

A course of special lectures on Insurance for Third Year students.

# Physics.

The course in Commercial Physics consists of two lectures and a two-hour laboratory period each week. The object of the course is to introduce the students to the various laws and principles of physics and to make them familiar with the principles underlying the appliances and phenomena of every-day life. In the laboratory the students are required to make measurements and observations under the guidance of instructors. The following headings are indicative of the nature of the course given:—

Simple machines; mechanics of liquids and gases; elasticity and strength of materials; accelerated motion; force; energy; momentum; effects of heat; heat engines; a history of the developments in magnetism and electricity; battery currents; induced currents; electric power; alternating current machines; sound production and transmission; sound phenomena; sound as related to music; lamps

and reflectors; lenses and optical instruments; spectra and color phenomena; Roentgen rays and electric waves in general.

# Spanish.

The study of Spanish will extend through all three Commerce years, and will first be approached from the literary side. In the Second and Third years increasing weight will be given to commercial matters.

The following text-books will be used:-

### BEGINNERS' CLASS.

Coester's Spanish Grammar (Ginn & Company); Alarcon's Novelas Cortas (Ginn & Company); Romera-Navarro's "Manuel del Comercio," first 20 pages (Henry Holt & Company); Loiseaux's Spanish Composition, first part (Silver, Burdett & Company).

## FIRST YEAR.

Quintana's Vida de Vasco Nunez de Balboa (Ginn & Company); Valera's El pajaro verde (Ginn & Company); Pardo Bazan's Pascual Lopez (Ginn & Company); Romera-Navarro's "Manuel del Comercio" (Henry Holt & Company); Loiseaux's Spanish Composition, second part (Silver, Burdett & Company); Spanish Commercial Correspondence, by Whittem & Andrade (Heath & Company).

### SECOND YEAR.

Selections from Don Quixote (Heath & Company); Calderon's "Alcalde de Zalamea" (Heath & Company); Selections from the Oxford Book of Spanish Verse; Moratin's "El si de las Ninas" (Gınn & Company); Spanish Humor in Story and Essay (Ginn & Company); Harrison's Spanish Commercial Reader (Ginn & Company); Spanish Commercial Correspondence, by Whittem and Andrade (Heath & Company); Cool's Spanish Composition, I to 15 (Ginn & Company).

### THIRD YEAR.

El estudiante de Salamanca and other selections from Espronceda's works (Ginn & Company); Legends, Tales and Poems, Becquer (Ginn & Company); Selections from the Oxford Book of Spanish Verse; Pereda's "Pedro Sanchez" (Ginn & Company); special books dealing with commerce; Cool's Spanish Composition, ex. 15 to end (Ginn & Company); Spanish Commercial Correspondence.

Beginners in Spanish, who are taking Spanish as their principal modern foreign language, must during their first session, follow the course mapped out for beginners. During the ensuing vacation they must make up the work laid down for First Year students, so as to be able to pass an examination on this work in September before entering on their second session.

# Commercial Law.

The lectures on commercial law will be designed to render service to the business man, the banker, and the accountant, in their every-day transactions, and to instruct students who may be preparing for the examinations held in connection with the Association of Accountants in the Province of Quebec. The subjects will be treated from the point of view of the business man rather than from that of the lawyer.

In the first year a course of 25 lectures will be given on the general principles of the law of contract. These will include the formation, interpretation, operation, and discharge of contracts, and the remedies for breach. Special reference will be made to certain particular contracts, such as sale, partnership, agency, etc.

Alternate courses of 25 lectures each will be given in the second and third years. One course will deal with the law of corporations (Dominion and Provincial), including winding-up. The other course will deal with the law governing negotiable instruments and banking transactions. Each course will include an exposition of the relevant statutes. Attention will be drawn to any important differences between the law of Quebec and that of the rest of Canada.

# General Chemistry.

The course includes a study of the more important elements and compounds, the general laws and principles and the fundamental theories of the science; with as many industrial applications as time will allow. The lectures are illustrated with specimens, experiments, diagrams, lantern-slides, etc. The general intention of the course is to give a thorough training in the basic principles of the science and their applications, so that chemical problems arising in connection with future work and study may be intelligently considered.

Text-book:—McPherson and Henderson, "A Course in General Chemistry."

# Industrial Chemistry.

Third year Commerce students will henceforth take the Industrial Chemistry course (No. 69) organized by Dr. Ruttan for Fourth Year students in Applied Science.

# FACULTY OF APPLIED SCIENCE.

# DEGREES.

The degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are "Bachelor of Architecture" (B.Arch.), and "Bachelor of Science" (B.Sc.), mention being made in the diplomas of the latter of the particular course of study pursued.

Students who take the Bachelor of Science degree in one of the courses provided by the Faculty may graduate in any of the remaining courses by attending one or more subsequent sessions and passing the prescribed additional examinations.

Students who wish to obtain the degrees of B.A. and B.Sc. (Applied Science) in six years, will spend the first three years in Arts before attending any classes in Applied Science, except in the summer courses referred to below; they will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of this Faculty. The special summer courses mentioned take the place of the work in descriptive geometry, drawing (freehand and mechanical) and shopwork, which form part of the regular course of the first year in Applied Science. This work must be taken in two periods of one month each, prior to the regular work of the second and third years in the Faculty of Arts; and must not be taken during the regular session in any of the three years spent in that faculty.

Every student who intends to take this double course must notify the Dean of the Faculty of Applied Science to this effect, on or before the close of his first year in Arts (May 1st), and must pay the fee of \$50.00 to the Bursar, for the first of his summer schools, before the date scheduled for the beginning of the school in question.

By a resolution of the Institution of Civil Engineers (England) the holders of the degree of B.Sc., in the courses of civil, electrica!, mechanical and mining engineering, who are desirous of becoming Associate Members of the Institution, may under certain conditions be exempted from the examination prescribed for admission to the Institution.

### EXAMINATIONS.

1. Final examinations are held in all lecture subjects. Class examinations, for which credit may be given in the sessional standing, are held from time to time, at the option of the professor.

- 2. Students who have failed in one or more subjects of the curriculum shall (except in cases where they are called upon to repeat their year) be required to make good their standing by passing:
  - (1) The regular supplemental examinations held immediately before the opening of the session, or
  - (2) The final examinations in a subsequent session, or
    - (3) Special examinations, which shall be given only under exceptional circumstances and by authority of the Faculty.
- 3. Failures in drawing room and laboratory subjects may under certain conditions be made good by attendance on special classes during the afternoon of the first six weeks of the following session.
- 4. No undergraduate will be allowed to take instruction in any subject until he has passed the examinations in the necessary prerequisite subjects, for particulars regarding which see page 243.

## SCHOLARSHIPS, PRIZES AND MEDALS.

See pages 90 to 93.

FEES.

See page 99.

#### ENGINEERING SOCIETIES.

- I. The headquarters of the Engineering Institute of Canada are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Institute, which they can do on payment of a fee of \$3.00. They are then entitled to the monthly journal of the Institute, and to the use of the Institute's rooms, 176 Mansfield Street. They also have opportunities of meeting the prominent engineers of the country, and of being present at the fortnightly sessions, at which papers are read on current engineering subjects and works of construction.
- 2. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining and Metallurgical Society, which, although a student body (see pages 233 and 236), is affiliated with the Canadian Institute of Mining and Metallurgy, the headquarters of which are in Montreal. Members of this Society receive the Monthly Bulletin or the Transactions of the Institute without extra expense, and are entitled to attend all meetings and to compete for the prizes offered.

Students are invited to compete for the prizes which are offered by the Institutes above mentioned.

# COURSES OF INSTRUCTION.

The instruction in this Faculty is designed to afford a thorough training of a practical as well as theoretical nature, in the following branches of applied science:—

I.—Architecture.

II.—CHEMICAL ENGINEERING.\*

III .- CIVIL ENGINEERING AND SURVEYING.

IV.—ELECTRICAL ENGINEERING.

V.—MECHANICAL ENGINEERING.

VI.—METALLURGICAL ENGINEERING.

VII.—MINING ENGINEERING.

Note:—A course is also offered in Engineering Physics, particulars of which are given on page 120.

MILITARY INSTRUCTION (subject No. 400) may be given as alternative to certain subjects in connection with courses II to VII inclusive (see pages 184 to 195).

## CURRICULUM.

The curriculum as laid down in the following pages may be changed from time to time as deemed advisable by the Faculty, and in no case shall it be binding beyond the session covered by this calendar announcement.

The regular work of each session in Applied Science will end about the 30th of April, at the close of the sessional examinations. The summer work will be taken during the month of May except as specified on page 196.

The work prescribed for the first two years is the same in all courses, except in that leading to the degree of Bachelor of Architecture (Course I).

The first two years of the engineering courses (II to VII) are mainly devoted to mathematics, mechanics, physics, chemistry, drawing and shopwork, as it is deemed necessary that students in these courses should master the general principles underlying scientific work before commencing the professional subjects.

<sup>\*</sup>No student shall be permitted to enter the third year of this course, who has failed to secure at least second class standing in Second Year Chemistry and Laboratory.

The subjects of instruction in the engineering courses in these years, and the number of hours per week devoted to each, are as follows:—

FIRST YEAR

SUBJECT	Subject Number	Lectures per week		Labor etc., p	For details see	
		First Term	Second Term	First Term	Second Term	page
Algebra. Descriptive Geometry* *English. Freehand Drawing and Let-	341 131	5 1 2	4 1 2	 2⁄3 	2/3	223 216 219
tering. Geometry. Mechanical Drawing. Mechanics. Physics. Physics Lab. Shopwork.	342, 343 191 211 194 311 312	1 2 2 2 2	2 2	2/3 2  1 2	2/3 2  1	216 222 224 223 238 238 238 224
Shop Methods. Trignometry	212-4, 220 215 193	1/2	1/2 3			224 224 223

All undergraduate students of the first year, except those in the course of Architecture, who at the close of the first term have failed to obtain an average of 33 per cent. in the following five subjects, viz.:—mechanics, geometry, algebra, physics and descriptive geometry, will be required to withdraw from the Faculty.

In the case of students in the course of Architecture the same rule applies, the five subjects, however, being mechanics, geometry, algebra, physics and architectural drawing.

Any other student of the first, or any subsequent year, whose record is found to be unsatisfactory, may at any time be required to withdraw from the Faculty.

All students of the First Year, except those in the Department of Architecture, who have pursued their course of study without serious interference due to personal illness, domestic affliction or urgent affairs, and who fail in more than three subjects of the First Year, in which standing is determined by sessional examinations, or in three such subjects aggregating over 350 possible marks, shall be required to repeat the work of the First Year, and while so doing shall be debarred from taking any more advanced work.

<sup>\*</sup> The lectures will be supplemented by individual conferences with the instructors.

SECOND YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Anal. Geometry. Calculus. General Chemistry General Chem. Lab Mapping. Materials of Construction Descriptive Geometry and Perspective. Mechanics. Mech. of Machines. Physics Physics Lab Shop Methods. Surveying Surveying Field Work Summer Reading.	198 51 52 348 81 345 83 218	3 2 3  1 1 2  1 2	1 2 1 2	 1 1  243 245  1	1 1 1  25 25 25 25 	223 223 207 207 207 239 211 217 211 225 238 225 239 239 198

Note-Surveying field work, 4 weeks, beginning May 1st, 1922. See pages 196 and 241.

For other summer work, see pages 196 and 198.

All students of the Second Year, except those in the Department of Architecture, who have pursued their course of study without serious interference due to personal illness, domestic affliction or urgent affairs, and who fail in more than four subjects of the Second Year, in which standing is determined by sessional examinations, or in three such subjects aggregating over 400 possible marks, shall be required to repeat the Second Year.

# I. ARCHITECTURE.

The course for the degree of Bachelor of Architecture extends over five years. Full information is given in the Announcement of the Department, which will be sent to interested persons upon request to the Registrar of the University.

The work of the first year is similar in most respects to that of the first year in other Departments in Applied Science, but special instruction is given in Drawing and Architectural Geometry.

The object of this curriculum is to impart such general culture, scientific knowledge and skill of hand as will prepare the student to profit by the work of the succeeding years, under the heads of:—

(a) Design; (b) Aesthetic; (c) History; (d) Science; (e) Construction; (f) Professional Practice; (g) Drawing.

An essay on an historical or theoretical subject is required in each term from all students following the historical or theoretical courses.

In all courses studio work goes hand in hand with oral teaching, with a view to the practical application of the theory, while at the same time affording opportunity for the acquisition of power in draughtsmanship and practice in design.

An arrangement has been concluded between McGill University and the Province of Quebec Association of Architects, whereby holders of the Bachelor of Architecture degree are admitted to practice in the Province after spending one year in the office of a member of the Association, and passing an examination in design, instead of having to take the regular prescribed entrance examinations. The office experience may be gained by working in the summer vacations.

FIRST YEAR

SUBJECT	Subject Number		tures week	Roor other i	ghting n and periods week	For details see
		First Term	Second Term	First Term	Second Term	page
General History. English. Algebra Geometry Trigonometry. Mechanics. Physics Physics Lab. Elements of Architecture Architectural Geometry I. Architectural Drawing. Freehand Drawing.	131 192 191 193 194 Arts (44)	2 5 5 2 2 2 1	2 2 4	1 2 1 2	1 2 1 2	141 219 223 222 223 223 153 153 201 206 205 206

SECOND YEAR

		1 1		1	) ;	
Design A	1	1		2	2	201
Elements of Composition	6	1 1	1			201
Building Construction	24	1 1	1			204
Building Details	25	1 1		2	2	204
Architectural Engineering I	26	1 1	1	٠.		204
Arch. Eng. (Draughting) I	27	1 1		1	1	204
History of Classic Architecture	14	2	2			203
Architectural Geometry II	19			1	1	206
Surveying	346	2	2			239
Mapping	348			1	1	239
Architectural Drawing	34	1		1	1	205
Freehand Drawing	39	1 1		1	1	206
Summer Work		1 1				197
Surveying Field Work	347	1				239
Architectural Essay	46	1				206
2202000		1 1				
		1		·		

THIRD YEAR

	THIRD	YEAR					
SUBJECT	Subject	Lectures per week		Draughting Room and other periods per week		For details	
	Number	First Term	Second Term	First Term	Second Term	see page	
Design B. Theory of Design* Arch. Engineering, II A. Arch. Eng. (Draughting) II A History of Mediaeval or Re- naissance Archt,†	2 7 28 29	1 1	1 1	5	5	201 202 204 204	
Ornament and Decoration‡	9 and 10 or 11 and 12	1	1	1	1	203 202	
Freehand Drawing	40 35  47			2 1	1	206 205 198 206	
	FCURTH	YEAR					
Design C. Theory of Planning* Arch. Engineering, II B. Arch.Eng. (Draughting), II B. History of Mediaeval or Renaissance Architecture. Ornament and Decoration.	3 8 30 31 15 or 16 9 and 10	1 1 2	1 1 2	5	5	201 202 205 205 203	
Hygiene Heating and Ventilation Architectural Drawing Freehand Drawing Modelling Architectural Essay Summer Work	or 11 and 12 22 23 36 41 42 48	1 2  	1  	1 1 1 1	1 1 1 1 1	202 204 204 205 206 206 203 200	
	F1FTH Y	EAR					
Design D. Modern Architecture. Professional Practice. Engineering Law Historical Drawing. Modelling. Architectural Essay Summer Work.	4 17 32 175 37 43 49	2 2 1	2 2 1 	8  1 1 1	8  1 1 1	201 203 205 222 206 206 206 200	

†The courses on Mediaeval and Renaissance Architectural History numbers 15 and 16, are given in alternate years. During the Session 1921-22, the History of Renaissance Architecture will

be given.

tOrnament and Decoration courses, numbers 9 and 10, and 11 and 12, are given in alternate years. During the Session 1921-22, numbers 9 and 10 will be given.

For summer reading, see pages 197 to 200.
\*The courses on Theory of Design and Theory of Planning, numbers 7 and 8, will be given in alternate years.

### 11. CHEMICAL ENGINEERING.\*

The aim of this course is to prepare students for positions demanding a knowledge of both chemistry and engineering. The duties of a chemical engineer require him to be conversant with chemical processes, the installation of chemical units, and to understand the construction of buildings, the installation and operation of machinery, etc. Accordingly the course of study combines a considerable amount of engineering with the maximum of chemical training which can be attained without overpressure.

Between the second and third years students taking this course must attend a summer session of four weeks in the chemical laboratories.

In the third year specialization commences, the time being about equally divided between chemical and engineering studies, and in the vacation between the third and fourth years all students must give at least six weeks to work in some chemical industry or to equivalent laboratory work satisfactory to the Professor of Chemistry.

In the fourth year the engineering studies are completed and the chemical studies which predominate are arranged in two alternative courses to meet the requirements of the students who cannot possibly study more than a few of the very varied chemical industries. These alternative courses fall broadly under one or other of two headings:—
(a) inorganic, (b) organic, as indicated in the table below, and one or other of which the student will select. Should a student desire to prepare for an industry which requires more engineering knowledge than is provided in the regular course he may substitute additional engineering subjects for some of the chemical work. Details will be arranged on application to the Faculty through the Professor of Chemistry.

While every effort will be made to supply detailed information as to methods and plan of many of the important industries, and to provide facilities for experimentally carrying out the processes involved, the main aim will be to study the principles which underlie the application of chemistry to economical production.

#### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 180 and 181.

<sup>\*</sup> No student shall be permitted to proceed to the third year of this course unless he has secured at least second class standing in the subjects of General Chemistry (51) and Chemistry Laboratory (52).

For

Laboratory,

etc., periods

THIRD YEAR

Lectures

SUBJECT	Subject Number	per	week	per	week	details see
		First Term	Second Term	First Term	Second Term	page
Economics.  General Elem. Metall.  Inorg. Quant. Anal.  Inorg. Quant. Analysis Lab. Mech. Eng. and Lab. Mineral. Deter.  Crushing and Grinding Mach. Organic Chemistry. Organic Chemistry.  Strength of Materials.  Strength of Materials.	142 143 295 56 57 58 87 88 80	2 1 2 2 3 2 2 3	2 2 2 1	3 1 2	2  1 1	222 230 208 208 228 220 220 233 268 208 208 208 212 212 213
	FOURTH Y	EAR				
Elements of Elec. Eng. Elect. Erg. Lab Engineering Economics †Engineering Law (alt.) †Hydraulics Industrial Inorg. Chemistry Industrial Organic Chem Phys. Chem. and Lab. Metellography †Military Science (alt.) Applied Electro-Chem. Fire Assay. Adv. Inorg. Chemistry Inorganic Laboratory. Advanced Org. Chem. Org. Chem. Lab. Food Chemistry. History of Chemistry Colloid Chemistry Summer Essay.	111 112 172 175 101 68 69 66 279 400 70 273 72 67 64 65 73 74 75 134	2 1 1 2  2 2 2 2 2 (a) 1(a) 2(b)	2 1 2 2 2 2 2 2 (b) 1 (b) 1 2 2 2 3 3 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4	1 1/2	1 2 1(a) 1 1 4(a) 2 (b) 2 (b) *	217 218 222 222 210 210 220 232 210 232 210 232 210 239 299 299 299 299 299 299 299 299

<sup>†</sup>Mi'itary Science (400) is alternative with Engineering Law (175) and Hydraulics (101). (a) Inorganic alternative. (b) Organic alternative.

\*The hours required for laboratory work in this course will be taken from

Summer Essay

time assigned to subjects 65 or 67.

# III. CIVIL ENGINEERING.

The courses of study are designed to emphasize the fundamental principles embodied in the study of mechanics, strength of materials, and hydraulics, while at the same time affording an opportunity of applying these principles to practical problems ranging over as wide a portion as possible of the field covered by the practice of civil engineers. A broad and sound foundation is thus laid for future specialization, either in graduate courses or in actual practice. The outlook of the student is further broadened by courses in Mechanical and Electrical Engineering. In the designing courses special attention is given to the interpretation and critical discussion of specifications as well as to the economical principles involved. Students are recommended to obtain as much practical experience as possible during the summer vacations, and are specially recommended to spend at least one season in a drafting office before the final year.

### FIRST AND SECOND YEARS.

 $A_S$  in other Engineering Courses. For details, see pages 180 and 181.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Economics Foundations Geology, General. Hydraulics Hydraulics Hydraulic Laboratory. Map Projections Mechanical Engineering. Mech. Eng. Lab Mechanics. Railway Engineering. Railway Engineering. Strength of Mats. and Lab Structural Engineering Surveying. *Surveying Fieldwork Summer Reading or Essay.	171 89 141 97 98 351 226 228 86 92 93 87, 88 90 353 354 133	2 2 2 2 2 2	2 1 2 2 2 1 2	1 1 1  2	1 1 2 1 1 1 1	222 212 220 213 213 239 226 226 211 213 212 213 212 213 219 219 219 219 219 219

### FOURTH YEAR

Bridge Design.	96	2	2	9	2	214
Elements of Elect. Eng.	111	2	2	_	_	217
Electrical Eng. Lab	112	_	_	i i	1	218
Engineering Economics	$17\bar{2}$	9		1	1	222
Engineering Law (alt.)	175	1	1			222
Geodesy	359	9	1			
Geodetic Laboratory	360	2				249
*Geodetic Fieldwork				1		249
Hydroulis Mast (14)	361		_			240
Hydraulic Mach. (alt.)	99	1	2			214
Military Science (alt.)	400 •	2	2		1	
Municipal Eng	100	2	2		1 1	215
Strength of Materials	95	2	1		1	214
Theory of Structures	94	1	2	1	2	213
Summer Essay	134			-	-	199

†Military Science (400) is alternative with Engineering Law (175) and Hydraulic Machines (99).

\*For Surveying Fieldwork (354) and Geodetic Fieldwork (361), see details of Summer Schools, pages 196 and 241.

### IV. ELECTRICAL ENGINEERING.

The electrical studies of the third year embrace a consideration of current flow; the principles of electro-magnetism; electrical measurements; the design and performance of electrical machinery.

The fourth year is devoted principally to electrical work, and includes lectures and laboratory work on variable and alternating current phenomena, the principles of action and the design of electrical machinery, electric lighting and systems of power distribution, central station design and operation, urban and interurban railways, hydroelectric power development, electro-chemistry, electro-metallurgy and wireless telegraphy.

Occasional visits are made to electrical works and power plants.

### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 180 and 181.

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Economics Electrical Engineering Electrical Engin, Lab. Calculus. Machine Design Mechanical Drawing. Mech. Eng. and Lab. Mechanics. Mech. of Machines. Thermodynamics Strength of Mats. and Lab. Summer Reading or Essay.	171 113 114 201 225 232 223, 226 86 224 229 87, 88 133	3 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 3 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 %	2 2/s  1 1  2/s	222 217 217 223 225 227 226 211 225 226 212 198

FOI.	RTH	YE	AR.

Applied Elec. Chem	70	2				210
Electrical Photometry and Il-						
lumination	124	2				219
Applications of Electricity	123	-	9			219
			2 2 2 3			232
Electro-Metallurgy	276		4			
Electrical Designing	122	$\frac{2}{3}$	2	1	1	219
Electrical Engineering	117	3	3			218
Elec. Eng. Lab	118			3	3	218
Elect, Light and Power Dist.	120	2				218
Electric Traction	121		2			218
Engineering Economics	172	2				222
Engineering Law (alt.)	175	1	1			222
	97	$\hat{2}$	i -			213
Hydraulies	98	1 -		1	1	213
Hydraulics Lab				. 1		228
Machine Design	243	2			3.	228
Military Sciene (alt.)	400	$\begin{vmatrix} 2\\2\\2 \end{vmatrix}$	$\frac{2}{2}$		1	
Physics	320	2	2			238
Physics Lab	321			2	2	238
Summer Essay	134	1	1	ļ		199

For the course in Engineering Physics, see page 120.

<sup>†</sup>Military Science (400) is alternative with Engineering Law (175) and one lecture hour per week of Electrical Design (122). For Summer Schools, see page 196.

# V. MECHANICAL ENGINEERING.

The subjects of instruction in this Department are of interest to students who are likely to take up work connected with:—

(a) The constructive or manufacturing side of mechanical engineering, including industrial or production engineering; (b) steam engineering; (c) gas engine and producer work; (d) power plant engineering; (e) heating and ventilation of buildings and factories; (f) aeronautics and aerodynamics.

Courses are given during the third and fourth years in mechanical engineering as applied to questions connected with power installations and prime movers. The earlier portion of this work is supplementary to the instruction given in thermodynamics, mechanics of machines and machine design, and leads up to the more advanced or technical subjects of power plant design, industrial plant design and works organization.

Students in the Department of Mechanical Engineering take systematic work in electrical engineering during the third year.

Instruction in workshop practice is given in each of the four years. This work is of a systematic nature, and is intended to prepare for, but by no means to replace, that practical experience of manufacturing operations on a commercial basis which every mechanical engineer must obtain for himself.

The course in thermodynamics deals more particularly with the theory of heat engines, and time is assigned for additional graphical and experimental work in connection with the subject.

Arrangements are made for occasional visits to power plants and manufactories of importance.

# FIRST AND SECOND YEARS.

As in other Engineering Courses (see pages 180 and 181), with additional course in May for second year (page 196).

THIRD YEAR

SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Economics Elements of Elect, Eng Elect, Eng, Lab Machine Design Mechanical Drawing Mechanical Eng, and Lab Mechanics Mechanics of Machines. Shopwork Shop Processes and Management Strength of Mats, and Lab Structural Engineering Thermodynamics. Summer School Shopwork. Summer Reading or Essay	237 87, 88 90 229 233, 234	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 3 2 1 2 1 2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	222 217 218 225 227 226 211 225 227 212 213 226 227 198

# FOURTH YEAR

Designing	241			1	1	228
Engineering Economics	172	2			1 -	222
†Engineering Law (alt.)	175	1 1	1 1			222
	257	1 1	i i			229
Experimental Eng.		2		1 1		213
Hydraulies and Lab	97, 98	2		1		214
** Hydraulic Mach. (alt.)	99		2		11	
Man. Plant Des. (alt.)	253	1	2		1	229
Machine Design	242	2	2			228
Power Plant Design	244	1 1	1 1	1	1	228
Power Flant Design	247	î	lil	-		228
Heat. and Vent. of Buildings.		1	1 1	31/3	31/3	229
Mech. Eng. Lab	249	1		0 73		228
Mech. of Mach	240	$\frac{2}{2}$	2	1/3	13	220
†Military Science (alt.)	400	2	2		1	
Works Organization and Ac-		1		1	i	
	254	1	1 1			$^{230}$
counting	252	1 *	- 1	1	1	229
Shopwork			2	_	- 1	229
Thermodynamics	251	2	2			199
Summer Essay	134	1		l •• i		199
		1	1	!		

<sup>\*\*</sup>One of the subjects, 253 or 99, must be taken unless Military Science (400)

is chosen.
†Military Science (400) is alternative with Engineering Law (175) and Hydraulic Machinery (99) or Man. Plant Design (253).

### VI. METALLURGICAL ENGINEERING.

This course is designed for students intending to enter metallurgical works, such as iron or steel works or smelting or refining plants. It includes instruction in the engineering, chemical, metallurgical and ore-dressing studies required by practising metallurgists.

A certain amount of mining is included in the third year curriculum in order to show the relation between mining and metallurgy; but the course is not intended for students wishing to become mining engineers.

In the third year instruction is given in economics, chemistry, assaying, geology, mineralogy, metallurgy, mining, ore-dressing, and mechanical and structural engineering.

After the third year there is a summer school in metallurgical works.

In the fourth year instruction is given in chemistry, electrical engineering, law, economics, hydraulics, metallurgy and ore-dressing. Metallurgical designing and laboratory work form important parts of the course.

## FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 180 and 181.

Between the second and third years there is a four weeks' summer school in qualitative analysis in the chemical laboratory, beginning about the first of May.

THIRD YEAR

		IBAK				
SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Economics Fire Assaying and Lab. Geology, General. Gen. Element Metall. and Lab. Inorg, Quant. Anal. and Lab. Metall. Calculations Metall. Colloquium Mineralogy and Lab Mining Engineering Ore Dressing and Lab Strength of Mats. and Lab Structural Engineering Summer School Inorg. Qual. Anal. and I ab. Summer Reading or Essay.	171 263, 264 141 261 61, 62 226, 228 265 266 142, 143 291 292 87, 88 90 54, 55 133	2 2 1 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 1 2 1 2 2 2 2 2 1	3 1 2	2 1/4 1/2 1	222 230 220 230 208 226 231 231 220 233 233 212 213 207 198
	FOURTH	YEAR				
Elem. Elect. Eng. and Lab. Electro-Metal. and Lab. Engineering Economics Engineering Law. General Metallurgy. Hydravlics and Lab Industrial Chemistry, Inorg. Inorganic Quant. Anal. Metallurgy Colloquium Metall. Lab Metall. Mach. and Design †Military Science (alt.) Ore Dressing and Lab tore Dressing and Lab tore Deposits (alt.) *Summer Sch. Metal. Works. Summer Essay	111, 112 275 172 175 271 101 68 67 272 277 274 278 400 300, 305 148 267 134	2 1 2 1 2 1 2 2 1 2 2 1 1	2 2 1 2  2 1 2	1 1 <sub>2</sub> 3 1 <sub>2</sub> 	1 1 1  3 2 1	217 232 222 222 231 215 209 210 231 232 232 232 232 232 231 199

<sup>†</sup>Military Science (400) is alternative with Ore Deposits (148). \*Metallurgical summer school (267) is taken at the end of the Third Year. For Summer Schools, see page 196.

# VII. MINING ENGINEERING.

Specialization does not begin until the third year, when an elementary course in metallurgy, is given and the professional courses in mining, ore-dressing and fire-assaying are begun, but the chief work is still in such fundamental science subjects as applied mechanics, chemistry, geology, mineralogy, and mechanical engineering.

The fourth year, on the other hand, is very largely given up to technical work in mining, ore-dressing, economic geology, metallurgy, and electrical engineering, and two elective alternative lines of study are offered, both including the essential subjects of the Mining Course and leading to the degree, but the first (a) giving the maximum amount of instruction practicable in geology, advanced petrography and mining machinery, and the second (b) substituting a fairly heavy course in electrical engineering for an equivalent portion of the subjects named above.

In both cases the fourth year work includes the equivalent of at least two full days per week in the laboratories and drafting room of the mining department, and in the second term each student is required to prepare a thesis giving the result of an extended individual experimental investigation.

A field school in mining, ore-dressing and geology is held between the third and fourth years, the work ordinarily beginning immediately after the close of the April examinations. From four to six weeks are spent in travel, during which a number of mines and concentrators are visited and critically studied under the direction of the departmental staff.

Facilities are also afforded to graduate students who wish to do advanced work in mining or ore-dressing, and the department possesses three endowed research fellowships for the benefit of graduates who show exceptional ability. (See page 235.)

# FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see pages 180 and 181.

#### THIRD YEAR

	THIRD	LEAR				
SUBJECT	Subject Number	Lectures per week		Laboratory, etc., periods per week		For details see
		First Term	Second Term	First Term	Second Term	page
Economics Fire Assaying Geology, General Inorg, Qual. Anal. and Lab Mine Mapping Mech. Eng. and Lab. Gen. Element. Metall Mineralogy Mineralogy, Determinative Mining Engineering Ore Dressing and Lab Strength of Mats. and Lab Structural Engineering Surveying Surveying Surveying Field Work Summer Reading or Essay	171 263 141 59, 60 293 226, 228 261 142 143 291 292 87, 88 90 352 354 133	1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 1	2 15 1 1  2 		222 239 220 298 239 226 239 220 220 233 212 233 212 213 239 240 198
	FOURTH	YEAR			1	-
Engineering Economies *Elem. of Elec. Eng. and Lab. Engineering Law (alt.). Geology of Canada ¿Geology, Historical (alt.). Hydraulies Inorganic Quantitative Anal. Metallurgy, General Military Science (alt.). Mining Engineering. Mining Machinery. †Mining Machinery (Adv.). Mining Colloquium Ore Dep. and Econ. Geol Ore Dressing and Milling. Ore Dressing Laboratory. Ore Dress. Lab. and Thesis. Petrography and Laboratory. †Petrography Advanced (alt.). Mining Field School Summer Essay.	172 111, 112 175 149 152 101 71 271 400 297 298 299 301 148 300 305 306 147 294 134	2 2 1† 1 1 1 1 2 2† 3	2 1† 1 2 2† 3 2 1 1 4†	1	1 1 † 2 2 3 1	222 217 222 221 221 221 210 231 234 234 234 234 234 221 234 234 234 234 234 234 234 234 236 399

<sup>†</sup>Students taking Military Science omit the whole of Engineering Law (175) and 12 lectures in Mining Machinery (298) and Ore Deposits (148).

# SUMMER SCHOOLS.

Undergraduates are required to attend Summer Sessions as specified below. The work is set forth in detail under the subject numbers referred to.

<sup>\*</sup>Omitted by students taking alternative elective (a). See page 194.

‡Omitted by students taking alternative elective (b). See page 194.

Norz:—Mining Field work at end of third year. See page 236.

Surveying Field work, between the Second and Third Years. See page 241.

Except as noted, classes will begin on May 1st and will close on May 27th, 1922.

COURSE	Students entering Second Year		Stud- ente Third	ring	Students entering Fourth Year	
	Subject No.	Page	Subject No.	Page	Subject No.	Page
Architecture Chemical Engineering Civil Engineering	347	239 239 239	54, 55 354	206 207 240	†50 *361	206 240
Elect, Engineering Mechanical Engineering	347	239 239	233 234	$\frac{227}{227}$		
Metallurgical Engineering Mining Engineering		$   \begin{array}{c c}     239 \\     239   \end{array} $	54, 55 354	$\frac{207}{240}$	267 294	231 236

\*This school is held during the month of September.

†This school will be held in 1921 from 14th September to 28th September, inclusive.

# Note:-Special Summer Schools.

As it is seldom practicable for students admitted to advanced standing in McGill University from other colleges to attend the May Summer School preceding the work of the year to which they are admitted, the following arrangements have been made for such students, but it must be understood that they only apply to students who have not previously been in attendance in the Faculty of Applied Science.

(a) Students entering the Second Year are required to attend a special Summer School in Surveying which extends over a period of four weeks in September preceding the work of the Session.

(h) Students entering the Third Year of the courses in Chemical Engineering and Metallurgical Engineering are required to attend a Special Summer School in Chemistry which extends over a period of four weeks during the month of September preceding the work of the Session.

(c) Students entering the Third Year in the course in Mechanical Engineer

ing should attend a Special Summer School in Shopwork held in September. This School, may, however, in certain cases be replaced by other work which has

received in advance the approval of the Head of the Department.

(d) Students entering the Third Year in the courses in Civil and Mining Engineering are required to attend a Special Summer School in Surveying during the latter half of September, and in these courses further work in Surveying is required for a portion of the month of May at the close of the Third Year.

(e) Students entering the Third Year in the course in Electrical Engineering are required to submit evidence satisfactory to the Head of the Department.

that they have been employed for a time at least equivalent to one month of steady employment, in a first class Electrical shop during the vacation preceding

their entrance into the third year.

(f) Students entering the Fourth Year in the courses in Mining and Metallurgical Engineering are required to submit evidence that they have had practical experience in mining and metallurgical work at least equivalent in extent to the work done in the regular Summer Schools in these courses and should by correspondence in the preceding Spring secure the approval of the Head of the Department concerned of the work which they propose to offer in place of the regular summer work.

(g) Students entering the Third Year or any subsequent year in the course in Architecture must submit evidence satisfactory to the Head of the Department that they have done summer work fully equivalent to the regular scheduled

summer work omitted.

# SUMMER ESSAYS AND SUMMER READING.

SESSION 1921-22.

# 1. For Students entering the Second Year.

All students entering the second year, except those in the course in Architecture (see below), will be required to read not less than three books from Group "A" and one book from Group "B" in the following list:—

" A "

Macaulay-Essays on Hampden, Walpole,

Pitt, Chatham and Hastings.

No. 225, Everyman's Library. (90c.)

J. M. Dent & Sons, Ltd.

Froude-"Life of Beaconsfield."

No. 666, Everyman's Library. (90c.)

Russell-"Life of Gladstone."

No. 661, Everyman's Library. (90c.)

Withers-" Poverty and Waste."

E. P. Dutton & Co. (\$1.25) or Murray (6s).

Farrand—"The Development of the United States."

Houghton Mifflin Company. (\$1.50.)

Parkman-" Montcalm and Wolfe."

Little, Brown Company. (2 Vols., \$3.50.)

'В"

Thackeray-" Vanity Fair."

No. 298, Everyman's Library. (90c.)

George Eliot-" Mill on the Floss."

No. 325, Everyman's Library. (90c.)

Stevenson-"Kidnapped."

Cassels, London; Burt, New York. (60c.)

Students in the course in Architecture must read the following books:-

Sturgis, Russell—"How to Judge Architecture." Lytton, Lord—"Last Days of Pompeii."

Students in the course in Architecture must also either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large freehand sketches in any desired medium.

All students will be required to pass an examination in the summer reading at the opening of the session. A maximum of 100 marks will be allowed for this reading.

# 2. For Students entering the Third Year.

Students entering the third year, except those in the course in Architecture (see below), must either

- (a) Follow a course of summer reading, or
- (b) Prepare an essay.
- (a) The summer reading required is, Ogg—" Economic Development of Modern Europe" (\$3.00, Macmillan), on which an examination will be held at the opening of the session. The same number of marks are allotted for this reading as for the essay.
- (b) The essay must in all respects follow the specifications laid down for essays submitted by students entering the fourth year, except that it may be shorter. All rules and regulations governing the fourth year essays, as set forth below, also apply to the third year essays. (See section 3.)

Students in Electrical Engineering or Mechanical Engineering who elect to write an essay and are not engaged during the summer on any engineering, scientific or industrial work which would afford a subject for an essay, may write on one of the following subjects:—
(Electrical Engineering students.)

- (1) The application of Electric Power to Industrial Establishments.
- (2) Relation between Fundamental, Electrical and Mechanical Units.

(Mechanical Engineering students.)

- (1) Oil Fuel Under Boilers.
- (2) Pulp and Paper Manufacture.
- (3) Shop Jigs and Gauges.

Students in Mining Engineering who are for any reason unable to write on some engineering work of which they have personal knowledge will be required to take the summer reading (a).

Students in the course in Architecture are not permitted to submit an essay, but must read the following books:—

Benvenuto Cellini's Autobiography. (Everyman's Library, Dent.) Hirn Yrjö—The Origins of Art. London, 1900. Macmillan Co.

Students in the course in Architecture must also either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large freehand sketches in any desired medium.

# 3. For Students entering the Fourth and Fifth Years.

Students entering the fourth year, except those in the course in Architecture (see below), are required to prepare an essay during the summer, to be handed in at the Dean's Office not later than 5 p.m. on Monday, October 10th. A maximum of 100 marks, or nearly 10% of the total marks for the year, is given for these essays.

The essays should be from 2,000 to 5,000 words in length. They should be illustrated by drawings, sketches, and (when desirable) by photographs, specimens, etc.

No essay compiled from books alone will be accepted unless the student has obtained in advance the permission of the head of his department to prepare such an essay.

The most acceptable subject for an essay is a critical description of the work on which the student is engaged during the summer, but a description of any engineering, scientific, or industrial work with which he is familiar will be accepted.

Students in Electrical Engineering, or Mechanical Engineering, who are not directly connected with any such work, may write on one of the following subjects:—

(Electrical Engineering students.)

- (1) Long Distance Power Transmission.
- (2) Variable Speed Drives for Machine Tools.
- (3) The Substitution of Electricity for Steam on Railroads.

(Mechanical Engineering students.)

- (1) Heavy-oil Engines.
- (2) Central Station Heating.
- (3) Methods of Increasing Production in Manufacturing.
- (4) Industrial Relations Between Capital and Labor.

The essays must be well expressed, and written in precise, well chosen, grammatical English. Advantage may be taken of any source of information in the preparation of the essays, but due acknowledgment must always be made of all the authorities and books which have been consulted. In judging the value of the essays, account will be taken not only of the subject matter, but also of style and literary construction.

All essays when handed in will become the property of the department concerned and will be filed for reference. Students are, however, permitted to submit duplicate copies of their essays in competition for the students' prizes of the Engineering Institute of Canada, or of the Canadian Mining Institute.

The essays must be written on paper of substantial quality and of a size approximately  $8\frac{1}{2} \times 11$  inches.

Students in the Course in Architecture are not permitted to submit an essay, but must read the following books:—

(Fourth Year.)

Benvenuto Cellini's Autobiography. Horn, Yrjö.—The Origins of Art.

(Fifth Year.)

The Architecture of Humanism. Geoffrey Scott, Boston, 1914.

They will be required to pass an examination on this reading at the opening of the session. A maximum of 100 marks will be allowed for the work.

In addition to this reading, students in the course in Architecture must either spend five weeks in the office of an architect or contractor, or prepare thirty-five reasonably large freehand sketches in any desired medium.

# SUBJECTS OF INSTRUCTION.

The following courses are subject to such modifications during the year as the Faculty may deem advisable.

#### DEPARTMENT OF ARCHITECTURE.

Professors:— { Ramsay Traquair (in charge of Department). Percy E. Nobbs (in charge of Design).

Assistant Professor:—W. E. Carless.

Special Instructor:—E. Dyonnet.

Special Lecturers:— { P. J. Turner.}

Lesslie R. Thomson.

## A .- Design.

The course in Design is divided into four classes (A, B, C and D), intended to be taken in the second, third, fourth and fifth years respectively. Advanced or backward students may be allotted to design classes to suit their individual requirements irrespective of their standing in other subjects, but good standing in Class D must be obtained prior to receiving the degree.

- I. Class A. Simple problems in composition of a monumental nature, not involving difficulties of plan.
  - 2. CLASS B. The design of domestic and small public buildings.
  - 3. CLASS C. The design of public buildings.
- 4. Class D. Problems involving the plan, structure and lay-out of complex buildings and groups of buildings. The diploma design for graduation is done in the second term.—Mr. Nobbs.

### B.-Aesthetic.

The theoretical courses are intended to develop a sense of critical judgment in the student, emphasizing the fundamental principles of composition and design.

5. The Elements of Architecture (24 lectures).

The five orders of Vignola, pedestals, pediments, intercolumniation and superposition of orders, arches, vaults, domes, roofs, openings, etc.—Mr. Carless.

6. The Elements of Composition (24 lectures). Analogies in the arts; principles of composition, mass unity,

balance, character, scale, proportion; symmetric and asymetric grouping; vertical and horizontal treatments; composition in plan, natural and axial; appreciation of intrinsic qualities of materials, values of textures, etc.—Mr. Carless.

- 7. THEORY OF DESIGN (24 lectures).
- (a) Aesthetic:—The history of aesthetic enquiry, perception, emotion, pleasure, pain and expression; the art impulse, beauty defined, the work of art; the three elements—subject, emotional content and medium; the criteria.
- (b) Acsthetic practice:—Pure design—the function of ornament, the moral logic of "motif," the material logic of treatment, the placing and classification of ornament; the evolution of functional forms, analysis of conventional forms; the use of scale and proportion; corrections and refinements.

Students will read selected passages from the works of G. Santayana, Yrjö Horn, Benedetto Croce, Marshall, Geoffrey Scott, Baldwin Brown and R. Blomfield.—Mr. Nobbs.

- 8. THEORY OF PLANNING (24 lectures).
- (a) Elements of Planning:—Dimensions, arrangements, scales, aspect, prospect, light, the structural bay, unit planning, axial planning.
- (b) Domestic Planning:—Stables, cottages, housing, residences; country houses and gardens; apartment houses.
- (c) Public Buildings:—Churches, halls, theatres, schools, libraries, hospitals, baths, fire stations, municipal buildings, etc.

Note:—The examples studied are selected from current architecture.—Mr. Nobbs.

Courses 7 and 8 will be taken in alternate years until further notice.

ORNAMENT AND DECORATION (48 lectures and 48 drafting periods), 9, 10, 11 and 12.

9. Decorative Heraldry. The place of heraldry in the arts; the laws of heraldry, heraldic art of different periods; modern practice and tendencies; symbolism and significant ornament.—Mr. Traquair.

Text-book:—Decorative Heraldry, Eve. Reference:—The Art of Heraldry, Fox-Davies.

10. Ornament in Form. The design of plaster work, terra cotta, stone carving, architectural sculpture, wood carving and furniture is dealt with as the evolution of form in distinctive materials, influenced incidentally by the prevailing taste of different periods.—Mr. Traquair.

Reference Books:—Plastering, Plain and Decorative; Millar; The Art of the Plasterer, Bankart; Mediæval Figure Sculpture in England, Prior.

II. METAL WORK. The design of wrought and cast iron, bronze. copper, brass, pewter, silver, gold and jewellery is dealt with historically and as the results of the methods of workmanship.—Mr. Traquair.

Reference Books:-English and Scottish Wrought Iron Work,

Murphy; Ironwork, Starkie Gardner; Leadwork, Lethaby.

12. COLOUR DECORATION. Stained glass, mosaic of various kinds, inlays, the use of coloured materials in external and internal design, mural decoration, and the analysis and construction of pattern.—Mr. Traquair.

Reference Books:-Vitraux, Merson; Windows, Day.

## C.—History.

13. GENERAL HISTORY. Mediæval and Modern Europe (50 lectures).

For particulars of the course, which constitutes the second year history course in the Faculty of Arts, see page 141. Dr. Fryer.

14. Ancient and Classic Architecture (48 lectures).

The architecture of the ancient Egyptians, Chaldeans, Assyrians and Persians; the Minoan civilization; architecture of the Dorian and Ionian Greeks, with special attention to the refinement of form in Hellenic art; the architecture of Rome and Byzantium to the fall of the Byzantine Empire. Mr. Traquair.

Text-books:-Banister Fletcher's History of Architecture; Ander-

son and Spier's Architecture of Greece and Rome.

15. MEDIAEVAL ARCHITECTURE (48 lectures).

The rise of the Romanesque schools, from the decline of the Western Roman Empire to the XI century; the evolution of ecclesiastical architecture in France and England to 1500 A.D.; the Gothic schools of Europe and the evolution of military and civil architecture. Mr. Traquair.

Text-book:-Power's Mediæval Architecture.

16. Renaissance Architecture (48 lectures).

The beginning of the Renaissance in Italy and its influence on architecture from 1400 A.D. to 1600 A.D.; the Renaissance in France from Francis I to the Revolution; the earlier and later phases of the Renaissance in England and English architecture during the XVIII century. Mr. Traquair.

Text-books:—Anderson's Italian Renaissance Architecture; W. H. Ward's French Renaissance Architecture; R. Blomfield's Short His-

tory of Renaissance Architecture in England.

17. Modern Architecture (48 lectures).

The end of the Renaissance and the classic revival in England; scholarly architecture; the "Gothic Revival" in England; the influence of Pugin, Ruskin and Morris; the "Arts and Crafts" movement; the

eclectic schools; Shaw and the free classicists; the progress of art in Europe during the XIX century; the classic schools and "official" architecture; the neo-gree movement in France; the national revivals, the secession and art nouveau; the colonial architecture of North America, Spanish, French and English; the modern schools and the present position. Mr. Traquair.

#### D.-Science.

MATHEMATICS 192, 193, 194. Algebra (for the first term only). Trigonometry and Mechanics. For full particulars, see page 223.

42 and 43. Physics and Physics Laboratory (48 lectures and 24 periods).

The instruction includes a fully illustrated course of experimental lectures on the general principles of physics, embracing the laws of energy, heat, light, electricity and sound. Prof. Eve.

346, 347 and 348. Surveying. (Full course: 4 weeks field schoo!, 48 lectures and 24 draughting periods, see page 239.)

22 and 23. HYGIENE OF BUILDINGS. (24 lectures in first term, 12 lectures and working out of one graphical problem in second term.)

22. Light and air, water, sanitary plumbing, sewage disposal. First term. Dr. Starkey.

23. The heating and ventilation of buildings. Second term. Prof. McKergow.

#### E.—Construction.

The second year work covers the ordinary building trades and detailing where calculations of a complicated kind are not involved. The third year work deals with structural problems involving calculation, while in the fourth year problems in structural design are worked out.

24 and 25. Building Construction and Building Detail (24 lectures, 48 draughting periods).

Building materials, brickwork, masonry, carpentry, roofing, etc.; joinery of doors, windows, etc., and the finishing trades, such as plastering, painting and plumbing; underpinning, shoring, centering and forms. General working drawings are prepared, and building works in progress are visited. Mr. Turner.

26 and 27. Architectural Engineering I and Architectural Engineering (Draughting) I (48 lectures and 24 draughting periods). Graphical methods of calculating and the strength of materials employed in construction. Mr. Thomson.

28 and 29. Architectural Engineering II A and Architectural Engineering (Draughting) II A (24 lectures and 48 draughting periods).

Theory and practice of reinforced concrete; foundations and retaining walls. Mr. Thomson.

30 and 31. Architectural Engineering II B and Architectural Engineering (Draughting) II B (24 lectures and 48 draughting periods).

Rivets and rivetting, symmetrical and eccentric connections; the design of structural steel, with examples of floors, columns, beams, office buildings and plate girders; the theory of arches in masonry and in steel. Mr. Thomson.

Architectural Engineering II A, and Architectural Engineering II B, with the draughting periods allotted to each, will be taken until further notice by the third and fourth years together, and are given in alternate years.

#### F.—Architectural Practice.

131. English Composition (24 lectures with exercises).

Instruction is provided with the Applied Science first year classes.
(See page 219.) Mr. Latham.

32. PROFESSIONAL PRACTICE (24 lectures with exercises).

Structure of specifications and general clauses; specifications for all trades; conditions of contract; agreements; building by-laws; estimates; reports; professional ethics. Mr. Turner.

175. Engineering Law (24 lectures).

Instruction is provided with the Applied Science fourth year classes (see page 222).

# G.—Drawing.

33, 34, 35 and 36. Architectural Drawing (84 periods of three and four hours).

The work in this course is in direct connection with the lectures in History of Architecture.

- 33. Drawings of the Classic orders, showing their application to other elements in architectural design, are prepared from the large models in the museum and from documents. Mr. Carless.
- 34. Drawings of the Greek orders are prepared with special reference to their structural development and design. Classic buildings are studied from documents in connection with the lectures on Classic Architecture. Mr. Traquair.
- 35. In connection with the lectures on Mediæval Architecture, sketch plans, elevations and details of important mediæval buildings are set up from documents. Mr. Traquair.
- 36. In connection with the lectures on the Architecture of the Renaissance, important buildings are studied by drawing and sketching. Mr. Traquair.

37. HISTORICAL DRAWING. The advanced study of one or more historical buildings by means of large scale drawings. Mr. Traquair.

38, 39, 40, 41. Freehand Drawing (48 periods).

Drawing in pencil or charcoal from casts of architectural ornament, architectural fragments and parts of the figure. Mr. Dyonnet.

18. Architectural Geometry I (24 lectures and 24 periods). Descriptive geometry; isometric and axometric projection; shades and shadows; developed surfaces and intersection of solids. Mr. Carless.

19. Architectural Geometry II (24 lectures and 24 periods).

The practical application of descriptive geometry to masonry and joinery; perspective; the rendering of perspective drawings. Mr. Carless.

42 and 43. Modelling (one period a week of two hours, extended over the fourth and fifth years).

The student first studies form directly from nature, and later on conventionalizes the forms with which he has become familiar for decorative purposes. The Architectural museum affords many examples from different periods of the adaptation and abstraction of natural motifs in ornament. They are used to show the spirit in which to work out ornament, and are not copied directly. Models of design on which the students are engaged are also prepared, and casting is taught. Mr. Dyonnet.

44. 45, 46, 47. An essay on an historical or theoretical subject is required from all students excepting those of the first year. This essay is to be prepared during the session.

#### 50. SUMMER WORK.

During the vacation following the close of the first, second and third years, the students in Architecture are required to read and be prepared to pass an examination on a selected theoretical, æsthetical, or historical architectural work, and in addition to this, to spend at least five weeks in the office of some architect or contractor; the period of such employment to be certified by a letter from the employer. Students who for any reason approved by the Head of the Department find it impracticable to do office work, may submit thirty-five reasonably large free-hand sketches, rendered in any desired medium as an equivalent.

A summer school in sketching and measuring is attended by all students between the second and third and between the third and fourth years, in the latter part of September, for the study of buildings in Canada and in the United States.

For summer reading, see page 197.

## DEPARTMENT OF CHEMISTRY.

DIRECTOR:-R. F. RUTTAN.

PROFESSOR OF INORGANIC CHEMISTRY:-F. M. G. JOHNSON.

Assistant Professors: - (A. R. M. McLean.

C. A. WRIGHT.

J. F. LOGAN.

N. C. McFarlane.

E. H. BOOMER.

DEMONSTRATORS: - \ J. Dolid.

W. R. McGlaughlin.

T. B. MILLAR.

T. P. SHAW.

## Second Year Lectures.

51. GENERAL CHEMISTRY. The course includes the history, occurrence, properties, methods of preparation of the most important elements and compounds, with their industrial applications; classification; general laws and principles; and the fundamental theories of the science; together with a brief discussion of scientific method. Three hours a week for all students in Engineering. Prof. Evans.

Text-book: - Macpherson and Henderson, General Chemistry.

54 INORGANIC QUALITATIVE ANALYSIS. A course dealing with the principles of analytical chemistry-nature of solutions, precipitation, etc., explanatory of the work done in the laboratory (course 55). Five lectures a week for the first three weeks of the summer session. Professor Evans.

Text-book:-N. N. Evans, Notes on the Theory of Qualitative Analysis. Reference: - Stieglitz, Qualitative Chemical Analysis.

# Second Year Laboratory.

52. GENERAL CHEMISTRY LABORATORY. Practical work designed to accompany and illustrate the lectures of course 51. The course includes the construction and use of ordinary apparatus, the preparation and study of important elements and compounds, qualitative analysis, and simple quantitative determinations, both gravimetric and volumetric, including combining weights, standardisation of solutions, hardness of water, etc., one period for all students of Engineering. Professor Evans and Messrs. McGlaughlin, Wright and Shaw.

55. INORGANIC QUALITATIVE ANALYSIS LABORATORY.

A course of laboratory work, including preliminary experiments on known substances, the examination of unknown mixtures for base and acid radicals, methods of bringing substances into solution, and a study of the chemical reaction involved in these processes. Four weeks in the Summer School for students of the Chemical and Metallurgical Engineering courses. Professor Evans and Mr. Greaves.

Text-book: -W. A. Noyes, Qualitative Analysis.

#### Third Year Lectures.

56. Organic Chemistry. A course in general elementary organic chemistry. Three lectures a week during the first term and two during the second term. Dr. Ruttan.

Text-books:—Perkin and Kipping's or Remsen's Organic Chemistry.

58. Physical Chemistry. An introductory course following the development of chemical theory, including vapour densities, molecular weights, the mass law and the phase rule.

Two lectures a week during the first term. Dr. Maass.

Text-book:—Theoretical and Physical Chemistry, Bigelow.

59. INORGANIC QUALITATIVE ANALYSIS. A course explanatory of the work done in the laboratory. One lecture a week in the second term for Mining Engineers only. Professor Evans.

Text-book:—N. N. Evans, Notes on the Theory of Qualitative Analysis.

61. INORGANIC QUANTITATIVE ANALYSIS. A course on the general principles involved in quantitative analysis. One lecture a week during the first term of the third year. Dr. Johnson.

 $\begin{tabular}{ll} \it Text-book: &-- Cumming & and & Kay. & \it For & \it Reference: &-- Treadwell's \\ \it Quantitative & Analysis. & \end{tabular}$ 

# Third Year Laboratory.

57. Organic Chemistry. A course on the preparation, detection and analysis of the commoner organic compounds. Two periods a week in the second term. Drs. McLean and Whitby, with Mr. McGlaughlin and Miss Charlton.

Text-book:-Norris' Experimental Organic.

60. INORGANIC QUALITATIVE ANALYSIS. A course adapted to the requirements of Mining Engineers. Two periods a week in the second term. Professor Evans with Mr. Wright and Miss Charlton.

Text-book: -W. A. Noyes, Qualitative Analysis.

62. INORGANIC QUANTITATIVE ANALYSIS. An extensive course on gravimetric and volumetric method. Three periods per week for Chemical Engineers (Course II). Dr. Johnson and Mr. McFarlane.

Text-book: - Cunningham and Kay, Quantitative Analysis.

## Fourth Year Lectures and Laboratory.

73. Food Chemistry. A course on the constitution and analysis of proteins, carbohydrates, fats and allied substances. The course also includes the estimation of food values, enzyme action. A course of one lecture per week and two laboratory periods during the second term. The laboratory work comprises the study of typical foodstuffs, and includes the use of the calorimeter, polariscope and refractometer in organic analysis. Dr. Ruttan, Dr. Whitby, Mr. Dolid and Mr. Shaw.

Text-book: - Woodman's Food Analysis.

64. Advanced Organic Chemistry. The lectures will deal with the more complicated classes of carbon compounds, such as the carbohydrates, terpenes and alkaloids; the more complicated types of reaction, such as the Grignard reaction, the Claisen reaction, the reaction of aliphatic and hydroaromatic diketones; various theoretical conceptions, such as geometrical isomerism, partial valency, the strain theory. Two lectures per week. Dr. Whitby.

Text-book:—Perkin and Kipping's Organic Chemistry. For reference:—Recent advances in Organic Chemistry, Stewart; Advanced Organic Chemistry, Cohen; Organic Chemistry of Nitrogen, Sidgewick.

65. Advanced Organic Laboratory. The course will comprise the preparation of a number of representative organic compounds of a more complicated nature than those prepared in the Third Year, including dyes, nitro derivatives and examples of reactions such as Perkin's, Friedel and Craft's, Skraup's and Grignard's. It will also comprise the quantitative determination of the elements and of typical groups in organic compounds; and also the identification of unknown organic substances. Four periods a week in the first term and two in the second. Drs. MacLean and Whitby, and Mr. Dolid.

The student is required during this course to take a complete course in gas analysis under Dr. Johnson.

66. PHYSICAL CHEMISTRY. Two lectures a week on general physical chemistry, including the kinetic theory, thermo-chemistry, electron theory in chemistry, chemistry of radioactive substances, etc.

Students will be required to work problems dealing with the subject matter of the lectures.

Two laboratory periods a week in the second term are devoted to typical physico-chemical measurements and methods of analysis. Dr. Maass, Mr. Wright and Mr. Boomer.

Text-book:—Washburn's Principles of Physical Chemistry; Findlay's Physico Chemical Measurements.

For Reference:-Ramsay's Text-books of Physical Chemistry.

67. INORGANIC LABORATORY. The lectures deal with the special methods of analysis of iron and steel, alloys and water. One lecture

and three periods a week in the first term and four periods in the second. Dr. Johnson and Mr. McFarlane.

The laboratory work is a continuation of courses 61 and 62. A course in gas analysis is given in the second term, as well as studies in colloid chemistry and some advanced inorganic preparations.

For reference: — Lord and Demorest, Quantitative Analysis; Treadwell's Quantitative Analysis; Blair, Chemical Analysis of Iron; Ibbotson, Analysis of Steel Works Materials.

- 68. INDUSTRIAL CHEMISTRY, INORGANIC. A course, both theoretical and descriptive, on the more important inorganic chemical industries. Two lectures per week in the first term. Special lectures are given in this course by chemical engineers from outside the University. Dr. Johnson.
- 69. Industrial Chemistry, Organic. This course is given during the second half of the session, and includes the chemistry of paper and pulp, sugar, starch and glucose, soap and fats, distillation of wood and the purification of the products, etc. Two lectures per week in the second term. This course is given by Dr. Johnson, with special lectures by several chemical engineers from the city and district who are specialists in one or other of the industries.
- 70. APPLIED ELECTRO-CHEMISTRY. The laws of electrolysis and of solutions are studied from the standpoint of the osmotic theory. Primary and secondary batteries, electro-plating, polarisation and the preparation and electro-chemical behaviour of the rarer elements used in incandescent lamps are discussed. The more important technical processes are studied and typical substances prepared in the laboratory Two lectures in the first term. Dr. Maass.

For reference: — Allmond, Applied Electro-chemistry; Blount, Practical Electro-chemistry.

71. INORGANIC QUANTITATIVE ANALYSIS. A laboratory course specially designed for Mining Engineers. Four periods a week in the first term. Dr. Johnson and Mr. McFarlane.

Text-book:—Lord and Demorest, Quantitative Analysis. For reference:—Olsen's Quantitative Analysis.

72. Advanced Inorganic Chemistry. A course of lectures on inorganic chemistry, discussing the elements and their compounds in accordance with the general principles of physical chemistry.

Two lectures a week throughout the session. Dr. Johnson.

- 74. HISTORY OF CHEMISTRY. A short course dealing with the development of chemistry from the historical standpoint. One lecture a week in the second term. Dr. Maass.
- 75. COLLOID CHEMISTRY. Two lectures per week and a total of ten laboratory periods in second term.

#### DEPARTMENT OF CIVIL ENGINEERING AND APPLIED MECHANICS.

Assistant in Charge of Testing Laboratory:—S. D. Macnab. Demonstrators:—  $\begin{cases} R. & S. & Eadie. \end{cases}$ 

#### Second Year.

81. Materials of Construction. Manufacture and properties of cast iron, wrought iron, crucible, bessemer and open hearth steel; principal alloys; considerations governing selections of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber; discussion of standard specifications.

Required of all engineering students. One hour per week. Prof. MacKay and Mr. Sproule.

83. Mechanics. The general principles of statics and of the dynamics of a particle are developed in the lectures, and numerous examples illustrating the application of mechanics to engineering problems are worked out.

The course includes the following:—Statics (analytical and graphical) comprising equilibrium of forces; funicular and force polygons; centre of gravity; bending moment and shear; forces in framed structures; friction; hydrostatics. Dynamics comprising work, power, energy; relative velocity; impact of jets; variable motion, both straight line and curvilinear (with graphic methods); curved track, conical pendulum, balancing; motion under variable force; simple harmonic motion (pendulums and oscillation of springs); velocity and acceleration in machines, inertia forces, crank effort diagrams; moment of inertia, fly-wheels, etc.

The mathematical courses in calculus are taken concurrently, and calculus methods are used freely. Four hours per week. Prof. Brown, Dr. Batho, Mr. Lamb and Mr. Jamieson.

Text-book:—Morley, Mechanics for Engineers. Reference book:—Poorman, Applied Mechanics.

#### Third Year.

86. Mechanics. The work of the second year course in mechanics is extended, and the dynamical equations for the motion of a rigid body in two dimensions are deduced. Numerous examples

are worked in detail, including problems on fly-wheels, kinetic energy of bodies having translation and rotation, oscillation of a rigid body about a fixed axis, impulse, etc. The elementary principles of the gyroscope are considered. Two lectures per week, first term. Prof. Brown and Dr. Batho.

Text-book: - Morley, Mechanics for Engineers.

87. Strength of Materials. This course deals with the fundamental principles of the strength of materials. It includes the following:—Stress, strain, resilience, and the elastic properties of materials used in construction; bending moment and shearing force diagrams; strength, curvature, and deflection of beams; continuous beams; cantilever beams and the like; simple problems on rolling loads; reinforced concrete beams; the strength of shafting; spiral springs; columns; bending combined with tension or compression; elementary consideration of compound stresses; distribution of shearing stress on various sections, etc.

Required of all engineering students. Two lectures per week during the session. Professors Brown, Batho and Lamb.

Text-book: -- Morley, Strength of Materials.

- 88. Strength of Materials Laboratory. The work is arranged to illustrate the principles of the lecture course in strength of materials (87), and includes the following:—Tension tests of various materials in 100-ton and 30-ton testing machines; determination of stress-strain diagrams by automatic recorders and by extensometers and scales; deflection of beams, wood and metal; torsion of shafts; deflection and vibration of spiral springs and torsional oscillations of wires; the moment of inertia of fly-wheels by oscillation and falling weight tests; determination of Young's modulus for various materials; complete tests of Portland cement; efficiency of chain blocks, experiments on tension and twisting of wires; bending combined with torsion as in shafting; together with demonstrations on the large testing machines of tensile tests of various materials, the breaking of timber and reinforced concrete beams and small columns, the compressive strength of concrete, bricks, mortars, etc. Three hours per week, second term. Prof. Brown, Dr. Batho, Mr. French, Mr. Jamieson, Mr. Eadie.
- 89. Foundations and Masonry. Borings; bearing power of soils; piles and pile driving; concrete piles; footings; grillages; underpinning; foundations under water; cofferdam, open dredging, pneumatic and freezing processes; estimation of quantities from drawings; estimates of costs.

Required of Civil Engineering students. Four hours per week, second term. Prof. MacKay, Mr. Dodd.

Text-book:—Foundations of Bridges and Buildings, Jacoby and Davis.

90. STRUCTURAL ENGINEERING. Problems in the design of beams, plate girders, columns, roof trusses, knee bracing, etc.; working drawings; reinforced concrete; estimates of quantities; estimates of cost. Required of students in Courses II, III, V, VI and VII. Four hours per week, second term. Prof. Lamb and Mr. Jamieson.

Reference Books:—Ketchum's Structural Engineer's Handbook; Morris, Structural Design; Cambria Steel.

- 92. RAILWAY ENGINEERING. The locomotive and its work; locomotive and grade problems; effect of distance, rise-and-fall and curvature on train mile costs; estimate of probable receipts and the expenditures; economics of location, reconnaissance, preliminary, and location surveys; turnouts, yards and terminals; details of construction; materials of construction. Required of Civil Engineering students. Two hours per week. Prof. Lamb.
- 93. RAILWAY ENGINEERING. The paper location of a railway, map, profile, earthwork, mass diagram, overhaul, velocity profile, bill of material and cost estimate of same; the design of a freight yard, detailing of switches and complicated lay-outs and bill of track material. Required of Civil Engineering students. Six hours per week. Prof. Lamb.
- 97. HYDRAULICS. The fundamental principles of hydraulics are considered and applied to problems on the discharge of orifices, notches, weirs, pipes and open channels under varying conditions. The theory of impact of jets and its application to turbines is also dealt with. Required of Civil Engineering students in the third year and of Mechanical and Electrical Engineering students of the fourth year. Two hours per week, first term. Prof. Brown.

Text-book: - Hydraulics and Its Applications, Gibson.

98. HYDRAULIC LABORATORY. The course is illustrative of the principles considered in course 97, and is taken concurrently. The work includes the following experiments:—Measurement of discharge from orifices, notches and pipes, both straight and bent, to determine hydraulic coefficients; pressure of jets impinging on vanes; tests of Venturi meter, hydraulic ram, Pelton wheel, Girard impulse turbine, etc. Three hours per week, first term. Prof. Brown, Dr. Batho, Mr. French.

#### Fourth Year.

94. THEORY OF STRUCTURES. The analysis of statically determinate framed structures under fixed and moving loads; distortion of framed structures; swing spans; braced arches and arched ribs with two and three hinges; hingeless arches in concrete and reinforced concrete; frames with redundant members.

Required of Civil Engineering students. Four hours per week, first term; eight hours per week, second term. Prof. MacKay, Mr. Jamieson.

Reference Books:—Johnson, Bryan and Turneaure's Modern Framed Structures; Marburg, Stresses in Structures.

95. Strength of Materials. The course includes the following:—The bending and deflection of beams loaded in any manner; beams continuous over several supports at the same or different levels; distribution of shear and deflection due to shear; principle of work applied to deflection of beams, trussed beams and some statically indeterminate problems; bending of curved bars, and of unsymmetrical sections such as single angles, etc.; elastic strains; relation between elastic constants; strength of thick shells; earthwork theories; suspension cables; the design of floor and column systems for reinforced concrete buildings (including a critical study of standard specifications); retaining walls, etc.

Required of Civil Engineering students. Two lectures per week during the first term, and one per week during second term, with the equivalent of one-half laboratory period per week throughout the session at times appropriate to the progress of the course. Prof. Brown.

Text-books:—Strength of Materials, Morley; Reinforced Concrete, Taylor and Thompson, or Reinforced Concrete Construction, Vols. II and III, Hool, or Reinforced Concrete Handbook, Hool and Johnson.

96. Bridge Design. The reason governing the selection of a particular type of bridge; discussion of the loads to which the bridge will be subjected; calculation of the stress in the several members; determination of the sectional areas and forms of the members; design of the connections; preparation of complete drawings.

Required of students in Civil Engineering. Eight hours per week. Prof. MacKay, Mr. Dodd.

Reference books:—Kirkham's Structural Engineering; Ketchum's Structural Engineer's Handbook; Waddell's Bridge Engineering.

99. Hydraulic Machines. The course includes the application of the principles of hydraulics to the determination of formulæ for the design of turbines and centrifugal pumps. Examples are worked showing the methods of finding the leading dimensions of different types of such machines. Representative machines and methods of regulation, etc., are considered in detail. The transmission of power by hydraulic pressure is also considered, and the functions of the accumulator are dealt with, along with the influence of inertia forces in the operation of such machines as reciprocating motors, pumps, riveters, etc. Two hours per week, second term. Prof. Brown.

Text-book: - Hydraulics and Its Applications, Gibson.

101. HYDRAULICS AND LABORATORY. A short course embodying the hydraulic principles outlined under courses 97 and 98 will be given in the first term. There will be one lecture per week, and six or more laboratory periods at hours to be arranged. Required of Mining, Metallurgical and Chemical Engineering students of the fourth year. Dr. Batho.

Text-book: -Slocum, Elements of Hydraulics.

100. MUNICIPAL ENGINEERING. (a) Sewerage. General methods and economic considerations; quantity of sewage; storm water runoff; design of sewers and appurtenances; manholes; flush tanks, catch basins, overflows, outlets, siphons, etc.; construction methods, materials and costs; estimates; maintenance and management; problems in design and estimating. (b) Sewage Disposal. Physical, chemical, biological and economic aspects of sewage treatment; disposal by dilution; screening, sedimentation, filtration, disinfection, etc.; maintenance and management. (c) Water Supply. Quantity, quality and pressure required; rainfall and evaporation; pumping machinery; storage; aqueducts, pipe lines and distribution systems; appurtenances -valves, hydrants, etc.; purification systems; fire service; construction methods; materials and costs; estimates; problems in design and estimating. (d) Roads and Pavements. Highway economics; surveys and location; grades; cross sections; paving materials, bituminous, stone, brick, wood, concrete, etc.; construction methods; street cleaning and repairs; estimates; problems in design and estimating. (e) Waste Disposal. Composition and quantity of city wastes, ashes, garbage, rubbish, etc.; collection; disposal, dumping, land treatment, incineration, reduction, feeding to swine, etc.; costs and returns.

Required of Civil Engineering students in the fourth year. Two hours per week, first term, and five hours per week, second term. Mr. French.

Text-books:—Turneaure & Russell, "Public Water Supplies"; Metcalf & Eddy, "American Sewerage Practices," Vols. 1 and 3.

References:—Folwell, "Sewerage"; Flinn, Weston and Bogert, "Water Works Engineers' Handbook"; Blanchard and Drowne, "Highway Engineering."

## Graduate Courses.

IOS. TECHNICAL ELASTICITY. The application of the Principle of Virtual Work, Castigliano's Theorem and the Method of Least Work to rectangular frames and other indeterminate structures; the theory of riveted joints; Bryan's theorem with applications to the calculation by successive approximations of columns with various types of loading, lateral loads and intermediate supports; comparison with other methods; elastic stability; the vibration of structures; the general

equations of elasticity with various applications, special attention being paid to approximate numerical solutions; the strength of flat plates, etc.; the torsion of thin tubes and prisms of non-circular cross-section; the determination of stress distribution by means of polarized light. Dr. Batho.

106. Theory of Structures. Secondary stresses due to rigidity of joints, eccentric connections, deflection of floor beams, etc.; frames, with redundant members; influence lines for arches and other statically indeterminate structures; critical discussion of specifications for built up members in the light of tests. Professor MacKay.

107. (a) Aerodynamics. Fluid motion; the principles of flight, scale effect, experimental methods and results; prediction of performance; equations of motion; stability of aircraft; propellers, etc.

(b) STRUCTURAL DESIGN OF AIRCRAFT. Loading conditions during flight; detailed calculation of structural strength. Dr. Batho.

# DEPARTMENT OF DESCRIPTIVE GEOMETRY AND FREEHAND DRAWING.

Associate Professor:—Henry F. Armstrong.

$$Demonstrators :- \begin{cases} C. \ J. \ Chaplin. \\ G. \ F. \ Alberga. \\ J. \ R. \ Windsor. \\ G. \ Thompson. \end{cases}$$

This Department provides a general course in drafting office methods and a training in the ground-work necessary to prepare the student for the work required in the Engineering courses of the third and fourth years. The accurate use of drawing instruments is practised and study is made of the various projection methods commonly employed. The problems in Descriptive Geometry are especially designed to develop the power of mentally picturing unseen objects and grasping groups of details.

#### First Year.

341. Descriptive Geometry. Geometrical methods; plane figures; areas; paths of points moving in planes, etc.; projections of points, lines, plane figures and solid objects; shadows, etc.

Three hours per week. Professor Armstrong.

Text-books:—Geometrical Drawing, by H. F. Armstrong; Descriptive Geometry, by H. F. Armstrong.

342. FREEHAND DRAWING. The object of this course is to train the eye to observe and the hand to record the essential characteristics and proportions of objects by means of sketches and diagrams of machines, etc., and to prepare dimensioned sketches from which to make scale drawings.

One hour and a half per week. Professor Armstrong.

343. Lettering. Types and titles such as are chiefly in use in draughting offices, including single-line, block and Roman lettering, and stencils.

One hour and a half per week. Professor Armstrong.

#### Second Year.

345. Descriptive Geometry and Perspective. Intersections of surfaces; intersecting planes; tangent planes; axometric, including isometric, projections; perspective projection.

Three hours per week. Professor Armstrong.

Text-book:—Descriptive Geometry, Henry F. Armstrong.

# DEPARTMENT OF ELECTRICAL ENGINEERING.

PROFESSOR:—L. A. HERDT.

ASSOCIATE PROFESSOR:—C. V. CHRISTIE.

ASSISTANT PROFESSOR:—E. G. BURR.

LECTURER:—G. A. WALLACE.

DEMONSTRATORS:—

W. SCHIPPEL.

SESSIONAL DEMONSTRATOR:—J. W. BAIN.

#### Third Year.

II3. ELECTRICAL ENGINEERING. The theoretical consideration of current flow in circuits; the laws of electro-magnetism and of the magnetic circuit; the theory and operating characteristics of direct current machinery; the principles of alternating current machinery. Required of students in Electrical Engineering. Four hours per week. Professor Christie.

Text-book: - Christie's Electrical Engineering.

114. ELECTRICAL ENGINEERING LABORATORY. Preparation of reports; construction, handling and protection of electrical apparatus; use of instruments and precision of measurements; predetermination of the characteristics of electrical machinery; special and shop testing.

Tests are made in the Laboratory on:—Current flow in circuits; metering and controlling devices, generators, motors, boosters, balancers and motor generator sets; are and incandescent lamps; reflectors. These tests are intended to illustrate the principles of action and the limits of the proper use of the apparatus. Students are furnished with special laboratory notes. Required of students in Electrical Engineering. Laboratory, six hours per week. Problems, two hours per week.

III. ELEMENTS OF ELECTRICAL ENGINEERING, for third year students in Mechanical Engineering and fourth year students in Chemical, Civil, Metallurgical and Mining Engineering.

A general course in electrical engineering, treating of the laws of electro-magnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting, power distribution and electric traction. Two hours per week. Mr. Burr.

Text-book:—Gray's Principles and Practice of Electrical Engineering.

112. ELECTRICAL ENGINEERING LABORATORY, for third year students in Mechanical Engineering and fourth year students in Chemical, Civil, Metallurgical and Mining Engineering.

Includes tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators and constant current machines; experiments of variable current flow in circuits; tests of alternators, synchronous motors and converters, induction motors and transformers, etc. Three hours per week.

#### Fourth Year.

117. ELECTRICAL ENGINEERING. The treatment of alternating current circuits by vector diagrams and vector equations; the theory and operating characteristics of alternating current machinery. Required of students in Electrical Engineering. Three hours per week. Professor Christie.

Text-book:—Christie's Electrical Engineering.

- 118. ELECTRICAL ENGINEERING LABORATORY. Tests are made in the laboratory on alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase changing apparatus, potential regulators, rectifiers, etc. Students are furnished with special laboratory notes. Required of students in Electrical Engineering. Laboratory, nine hours per week.
- 120. ELECTRIC LIGHTING AND POWER DISTRIBUTION. The design and operation of power plants and substations. Transmission and distribution systems are taken up under the following heads:—Selection of generators, transformers, switches and auxiliary apparatus with a study of their characteristics and limitations; wiring diagrams and switchboard design; line design and construction, selection of towers, insulators and conductors, calculation of sags and spans; high voltage and transient phenomena; the protection of overhead lines, cable systems and station apparatus; industrial applications of electrical apparatus; financial considerations. This subject is required of students in Electrical Engineering. Two hours per week, first term. Dr. Herdt.

Text-book: - Standard Handbook for Electrical Engineers.

121. ELECTRIC TRACTION. Urban, inter-urban and main line electrification is taken up under the following heads:—Choice of system and apparatus; calculation of motor rating and car equipment;

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overhead and track construction; methods of control braking and regeneration; storage batteries and boosters; financial considerations.

This subject is required of students in Electrical Engineering. Two hours per week, second term. Dr. Herdt.

Text-book: - Standard Handbook for Electrical Engineers.

122. ELECTRICAL DESIGN. The electrical design of direct and alternating current machinery. Special attention is paid to the limitations of the different types of machines and to the preparations of specifications. Required of students in Electrical Engineering. Lectures, two hours per week. Problem work, three hours per week. Professor Christie.

Text-book:-Gray's Electrical Machine Design.

- 123. APPLICATIONS OF ELECTRICITY. Lectures on industrial and general applications of electric power, the electrical supply systems for industrial power and lighting; special problems of plant design; special problems of lighting and in electrical systems; special problems of electrical transmission; electrolysis mitigation for electric railways. Lectures, two hours per week. Second term. Draughting room, two hours per week. Mr. Burr.
- 124. ELECTRICAL PHOTOMETRY AND ILLUMINATION. Electric light production; photometry; illumination; principles of interior and street illumination. First term. Lectures, two hours per week. Draughting room, two hours per week. Mr. Burr.

#### ENGLISH.

# ASSOCIATE PROFESSOR:-G. W. LATHAM.

131. English Composition. In view of the importance of accuracy of expression for those engaged in scientific or professional work, a course on English composition is prescribed for all undergraduates of the first year. Students will be assigned to a section which will meet semi-weekly for practice and instruction in composition, and in addition will be called upon from time to time, in hours especially reserved for the purpose, for individual conferences with the instructor, in which such advice and assistance will be given as may seem advisable.

Students coming to McGill from schools or colleges where an equivalent amount of English instruction is given may apply for exemption from the above course. Applications for such exemption should be addressed to the Dean of the Faculty of Applied Science, not later than September 15th, and should be accompanied by certificates of standing and a certified syllabus of the courses taken. Students who consider themselves qualified for exemption but cannot produce satisfactory certificates as above, may come up for a special exemption examination to be held on Saturday, October 8th, 1921, at 2

p.m. Candidates who present themselves for this examination in 1921 should be thoroughly prepared in Aydelotte's "English and Engineering," Sections VII to XVII inclusive.

In connection with this course the following text-books will be used:—Lomer and Ashmun's "The Study and Practice of Writing English" (Houghton Mifflin); Aydelotte's "English and Engineering" (McGraw-Hill Publishing Co.).

132. SUMMER READING. Second Year. (See page 197.)

133. SUMMER READING OR ESSAY. Third Year. (See page 198.)

134. SUMMER READING. Fourth Year. (See page 199.)

#### DEPARTMENT OF GEOLOGY AND MINERALOGY.

Professors:— { Frank D. Adams. J. Austen Bancroft (on leave of absence). Acting Professor:—H. C. Cooke.

ACTING ASSISTANT PROFESSOR OF GEOLOGY:—J. J. O'NEILL.
ASSISTANT PROFESSOR OF MINERALOGY:—R. P. D. GRAHAM.
LEROY FELLOW IN GEOLOGY:—GEO. W. BAIN.
SESSIONAL LECTURER:—JOHN A. DRESSER.
DEMONSTRATOR:—E. ARDLEY.

#### Third Year.

141. General Geology. The lectures will embrace a general survey of the whole field of geology and will be introduced by a short course on mineralogy. Especial attention will be devoted to dynamical geology and to historical geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern slides. In addition to the lectures there will be a demonstration each week. Dr. Adams.

Text-book:—Cleland, Geology, Physical and Historical.

142. MINERALOGY. The lectures and demonstrations, illustrated by specimens and models, deal mainly with the description and means of identification of species, special attention being paid to the ores and economic minerals and to those which are important as rock constituents. The earlier lectures are devoted to a brief discussion of the geometrical and physical properties of minerals; their chemical composition; calculation of formulæ, etc.; and the principles of classification. Mr. Graham.

143. Determinative Mineralogy. Laboratory practice in blowpipe analysis and its application to the determination of mineral species. Mr. Graham.

#### Fourth Year.

146. Petrography. The modern methods of study employed in petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to practical work in the petrographical laboratory.

Dr. Cooke and Mr. Graham.

147. Advanced Petrography. This is a more advanced course than 146. In addition to the lectures, an afternoon throughout the year will be devoted to practical work in the petrographical laboratory. Dr. Cooke.

Text-book: - Harker's Petrology for Students.

The petrographical laboratory is open to fourth year Mining students.

148. ORE DEPOSITS AND ECONOMIC GEOLOGY. The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, e.g., fuels, clays, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc. The structure of the earth's crust, more especially with reference to folding, faulting and igneous intrusion in their bearing upon mining, will then be considered, and the course will close with a discussion of the methods employed in carrying out geological and magnetic surveys and in the construction and interpretation of geological maps and sections.

Dr. Cooke will lecture on economic geology in the first term, and

Dr. Adams on ore deposits in the second term.

Text-books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Lindgren, Mineral Deposits; Beck and Weed, The Origin and Nature of Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada, and the Publications of the U.S. Geological Survey.

- 149. GEOLOGY OF CANADA. A general description of the geology and mineral resources of the Dominion. Dr. Cooke.
- 151. CRYSTALLOGRAPHY. A short course of lectures for students in chemistry, with laboratory practice in the measurement and drawing of crystals; calculation of axial ratios, etc.; use of the polarising microscope, axial angle apparatus, etc. Mr. Graham.

152. HISTORICAL GEOLOGY. This is a continuation of course 141, and will consist of lectures, colloquia and museum work extending throughout the session. Dr. O'Neill.

153. FIELD WORK. The students in mining will receive a course of instruction in geological mapping and field work-extending over one week-in connection with the summer school of mining. Dr. Cooke and Mr. Graham.

Note.—Students of the Mining and Chemistry courses take all the mineralogy of the third year. Chemistry students, in addition to the geology of the third year, may take the mineralogy of the fourth year.

#### LAW AND ECONOMICS.

Assistant Professor of Economics:—B. K. Sandwell. LECTURER ON ECONOMICS:—FREDERICK B. BROWN. LECTURER ON LAW:- J. W. WELDON.

171. Economics. This course is intended to give a general survey of the economic functions of society as they will present themselves to the engineer. The lectures will deal with the production and distribution of wealth; the means by which these processes are effected; the means by which they are controlled and regulated by the state or the community; the various theories concerning their operation and regulation; their effect on society; labor and capital; theories of money and credit; prices; public finance and taxation. Two hours per week in the second term of the third year. Mr. Sandwell.

Text-book:-

172. Engineering Economics. This course is intended to familiarize the engineering student with the business aspect of his profession. With this in view, lectures will be given on the subjects of property and its transfer; money and credit; stocks and bonds; partnerships and corporations; the banking system; clearing house and trust companies; the formation, organization and financing of companies; operating costs and fixed charges; depreciation and obsolescence; analysis of balance sheet and of profit and loss accounts; valuations; estimates; specifications and contracts; industrial organization; employment methods; systems of remuneration; location and planning of industries. Two hours per week in the first term of the fourth year. Mr. Brown and Mr. Sandwell.

175. LAW FOR ENGINEERS. This course is intended to present such an outline of the law as will be useful to engineers and business men. One hour per week in the fourth year. Mr. Weldon.

#### DEPARTMENT OF MATHEMATICS.

Professor:—D. A. Murray.

Associate Professor:—C. T. Sullivan.

CIATE FROFESSON.  $\Box$   $\text{Lecturers:-} \begin{cases} G. \text{ J. Dodd.} \\ R. \text{ S. Eadie.} \\ R. \text{ E. Jamieson.} \end{cases}$ 

#### First Year.

191. Geometry. Solid geometry and geometrical conic sections. First term. Dr. Murray, Dr. Sullivan, Mr. Dodd, Mr. Jamieson.

Text-book:-Hall and Stevens' School Geometry, Parts I-VI (Macmillan).

192. ALGEBRA. Miscellaneous theorems and exercises, exponential and other series, properties and solution of higher equations, complex numbers, graphical algebra with an introduction to analytic geometry, indeterminate forms, limits, derivatives, slopes of curves. First and second terms. Dr. Murray, Dr. Sullivan, Mr. Dodd, Mr. Jamieson.

Text-books:—Hail and Knight's Higher Algebra (Macmillan & Co.); Tanner and Allen's Analytic Geometry (American Book Co.) (Macmillan).

193. TRIGONOMETRY. Plane and spherical. Second term. Dr. Murray, Dr. Sullivan, Mr. Dodd and Mr. Jamieson.

Text-book: --Murray's Plane and Spherical Trigonometry, with tables (Longmans).

194. MECHANICS. An elementary course in dynamics, statics, and hydrostatics. First and second terms. Dr. Sullivan, Mr. Dodd, Mr. Eadie, Mr. Jamieson.

Text-book:—Loney's Mechanics and Hydrostatics for Beginners (Cambridge University Press).

#### Second Year.

197. ANALYTIC GEOMETRY. The point, straight line, circle, parabola, ellipse and hyperbola, elements of geometry of three dimensions. First year (latter part of second term), and second year (first term). The second year work begins with the circle. Dr. Murray, Dr. Sullivan, Mr. Eadie.

Text-book: — Tanner and Allen's Analytic Geometry (American Book Co.).

198. CALCULUS. Differentiation of functions of one or more variables, successive differentiation, tangents, etc., curvature, maxima and minima, integration, with application to areas, volumes, moments of inertia, etc. First and second terms. Dr. Murray, Dr. Sullivan, Mr. Eadie.

Text-book: ---Murray's Differential and Integral Calculus (Longmans).

#### Third Year.

201. CALCULUS. Elementary differential equations. Prescribed for Electrical Engineering students of the third year; optional for all others. First and second terms. Dr. Murray.

#### DEPARTMENT OF MECHANICAL ENGINEERING.

Professor:—C. M. McKergow.
Associate Professor:—A. R. Roberts.

Lecturers:—

Demonstrators:—

Demonstrators:—

Shop Instructors:—

C. U. Vessot.
H. A. Chisholm.
G. Thompson.
L. G. Shotwell.

G. Wooley.
J. Stewart.
H. Lane.
W. Gatehouse.

#### First Year.

- 211. MECHANICAL DRAWING. Instruction in the use of drawing instruments and materials, dimensioning, conventions and standards; preparation of working drawings and tracings of machine details and the detailing of assembly drawings. Required of all students, except architects. Six hours per week. Professor Roberts and assistants.
- 212. Carpentry and Wood-turning. Sharpening and care of wood-working tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, dado and sash joints; dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools. Required of all students, except architects. Three hours per week, sixteen weeks. Mr. Wooley.
- 213. SMITH-WORK. The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing. Required of all students, except architects. Three hours per week for eight weeks. Mr. Stewart.
- 214. FOUNDRY WORK. Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparations of moulding sand; boxes and flasks; core-making; use of core-irons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; floor moulding; open sand work; melting and pouring metal; mixtures for iron and brass casting. Required of all students, except architects. Three hours per week for eight weeks. Mr. Lane.
- 215. Shop Methods. Brief study of woods and of hand and machine tools used in wood-working; manufacture and working of iron and steel; forge and forge tools; welding; stock calculations;

steam hammer work; drop forging; cupola practice; moulders' tools; elementary moulding and core-making. Required of all students, except architects. One half-hour per week. Mr. Fraser.

220. Machine-shop Work. Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate, scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; machining flat and curved surfaces on the planing and shaping machines; drilling and boring; cutting angles and speeds; dressing and grinding tools. Required of all Engineering students. Three hours per week for sixteen weeks. Mr. Gatehouse.

#### Second Year.

218. MECHANICS OF MACHINES. (Second term.) Kinematics of machines.—Constrained motion; kinematic pairing; velocity and acceleration in mechanisms; centrodes; analysis and classification of simple mechanisms, including the quadric crank chain, the slider crank chain and various wheel trains; design of involute and of cycloidal wheel-teeth. Professor McKergow.

Text-book: - Durley's Kinematics of Machines (Wiley).

221. Shop Methods. Tools; tool steels; forging, hardening and tempering; case hardening; grinding and abrasives; brazing and soldering; modern welding processes; fits and fitting; interchangeable processes of manufacture; lathe construction, adjustments and practice. Required of all Engineering students. One hour per week. Mr. Fraser.

Text-book: - Elements of Machine Work, R. H. Smith.

#### Third Year.

224. MECHANICS OF MACHINES. Relative motion and displacement; crank effort diagrams, fly-wheels and inertia forces; the mechanism of the simple slide valve and of expansion valves; solution of valve setting problems; the function and dynamics of governors; elements of engine balancing; friction and lubrication. Required of students in Mechanical and Electrical Engineering. Three hours per week. Mr. Coote.

Text-books:—Durley's Kinematics of Machines (Wiley); Ewing's Steam Engine (Camb. Univ. Press).

225. Machine Design. Principles of the strength of materials as applied to the design of the part of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets, and riveted joints; journals and bearings; shafts and couplings. Required of students in Mechanical and Electrical Engineering. Two hours per week. Professor Roberts.

Text-book: — Unwin's Machine Design, Part I (Longmans). Book of Reference: — Spooner's Machine Design (Longmans).

226. MECHANICAL ENGINEERING. General course in Mechanical Engineering of Power Plants and Prime Movers.

Fuel and combustion, steam boilers and steam production; corrosion and defects of boilers; boiler plants and accessories, principles of selection and arrangement; the steam engine; estimation of power developed; economy of steam machinery; the indicator; condensers, pumps and accessories; steam turbines; principles of design in steam plants; gas engines and gas producer plants, their selection, economy and arrangement; general conditions governing location and design of power installations. Required of all Engineering students, except those in Mechanical Engineering. Two hours per week. Professor McKergow.

Text-book:-Duncan, Steam and Other Engines (Macmillan).

227. MECHANICAL ENGINEERING. Fuel and combustion; steam boilers and steam production; boiler installation and operation; the indicator; the steam engine, steam distribution and economy; steam turbines; condensers and auxiliary machinery in steam plants; gas engines and gas producer plants; compressed air and refrigerating machinery. Required of students in Mechanical Engineering. Three hours per week. Professor McKergow.

Reference book:-Ripper, Heat Engines (Longmans).

228. MECHANICAL ENGINEERING LABORATORY. Testing and calibration of indicators, brakes and other measuring instruments; investigation of the operation of brakes, dynamometers, and governors; test to determine the efficiency of belt and other transmission gearing; the properties of lubricants; the economy and performance of a steam engine and boiler, of a gas engine, of an air compressor, and of a pump. Required of all Engineering students, except those taking the Electrical Engineering course. Three hours per week. Professor McKergow and assistants.

Reference book:—Carpenter, Experimental Engineering.

223. MECHANICAL ENGINEERING LABORATORY.

First term, course same as 228; second term, experimental work on the relative value of throttling and expansion governors; effect on the economy of steam engine of changing from simple to compound, triple, or quadruple expansion; the testing of steam boilers, producer gas engines, air compressors, steam turbines, and a complete steam power plant test. Required of students in Electrical Engineering. Six hours per week in first term and three hours per week in second term. Professor McKergow and assistants.

Reference book:-Carpenter, Experimental Engineering.

THERMODYNAMICS. Fundamental laws and equations of thermodynamics; their application to gases and to saturated super-

heated vapours; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines. Required of third year students in Mechanical and Electrical Engineering. Two hours per week. Professor Roberts.

Text-books:—Ewing, The Steam Engine and Other Heat Engines (Camb. Univ. Press); Marks and Davis, Steam Tables. Reference book:—Ennis, Thermodynamics Applied to Engineering.

- 230. MECHANICAL DRAWING. Exercises in making sketches of machine parts and in preparing working drawings and tracings from them. This work may be required of Mechanical Engineering students. One week during summer term, between the second and third years. Mr. Coote.
- 231. MECHANICAL DRAWING. This course is supplementary to the course in machine design and consists of exercises in design and draughting of fastenings, machine parts and simple machines. Required of Mechanical Engineering students. Six hours per week for the first term and three hours per week for second term. Mr. Coote.
- 232. Mechanical Drawing. A course similar to 231, but less extended. Required of Electrical Engineering students. Three hours per week.
- 233. SMITH WORK. Tool forging and tempering, using carbon and high speed steels; making lathe and planer tools; taps, dies, drills, and tools for the forge; special welding. One week during the summer term, prior to work in third year session. Required of Mechanical Engineering students. Mr. Stewart.
- 234. FOUNDRY WORK. Moulds requiring a higher degree of skill and judgment than in elementary course; special methods of strengthening the mould; coating for smooth surfaces on castings; methods of avoiding defects; cupola charging and operating; core mixtures and core making; coring models. For same period as 233. Required of Mechanical Engineering students. Mr. Lane.
- 235. Pattern Making. Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core-boxes for pipes, flanges, elbows, tees and valves; more difficult exercises in pattern-making, including built-up patterns and face-plate work; gear and wheel patterns. Required of students in Mechanical Engineering. One week during summer term. Mr. Wooley.
- 236. Machine Shop. Lathe work; marking off; centering; turning and boring; radial facing; filing; grinding and polishing; internal and external screw cutting; change gear calculations; taper turning and bench work. Required of students in Mechanical Engineering. Three hours per week for one term. Mr. Gatehouse.

237. Shop Processes and Management. Materials used and methods adopted in the manufacture of patterns; factors involved in determining cutting speeds and feeds in lathe work, design of standard tools, experimental investigation; theory of grinding and grinding machines, polishing and lapping; broaching and broaching machines; different systems of generating gear teeth; precision methods and tools. Required of students in Mechanical Engineering. One hour per week. Mr. Coote.

## Fourth Year.

240. Mechanics of Machines. (a) Valve gears and governors. Gyrostatic action in machines; further treatment of engine governors; knocking and shocks in reciprocating machinery; valve gears.

(b) Aeronautics and Aerodynamics. The principles underlying the stability and weight-supporting power of curved and plane surfaces driven through the air at high velocities, together with the power required to maintain these velocities are studied, and the designs of such machines used for purposes of illustration. Required of students in Mechanical Engineering. Three hours per week. Professor McKergow and Dr. Batho.

Reference books:—Dalby's Balancing of Engines; Spangler's Valve Gears.

241. Designing. The complete design of an engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared. Required of students in Mechanical Engineering. Three hours per week. Professor Roberts.

242. Machine Design. (a) Design of power transmission gearing, including belts, ropes, friction, chain and toothed gearing, fits and fitting. (b) Engine details, including cylinders, piston rods, connecting rods, shafts, fly-wheels and machine frames. Required of Mechanical Engineering students. Two hours per week. Professor Roberts.

Text-book:—Unwin's Machine Design, Parts I and II (Longmans). Reference book:—Spooner's Machine Design (Longmans).

- 243. MACHINE DESIGN. Course same as 242 (a). Two hours per week during the first term. Required of Electrical Engineering students. Professor Roberts.
- 244. Power Plant Design. The arrangement, design and operation of power plants worked by steam and gas engines; effects of requirements for lighting, heating and power distribution. One lecture hour and one drafting room period per week. Required of students in Mechanical Engineering. Professor McKergow.

Text-book: -Gebhardt, Steam Power Plant Engineering.

247. Heating and Ventilation of Buildings. Loss of heat from buildings; radiation surfaces; design and operation of heating systems; principles of ventilation; fans and blowers; design and duct systems;

temperature and humidity control. One hour per week. Professor McKergow.

Text-book:—Allen and Walker, Heating and Ventilating.

249. MECHANICAL ENGINEERING LABORATORY. Experimental investigation of:—engine balancing and vibration; action of governors; performance of fans and blowers; efficiency of hoisting machinery; performance of steam boilers; steam engines, steam turbines, refrigeration machines, condensers, gas engines and producers; efficiency of air compressing and pumping machinery; tests of a complete steam power plant, gas power plant, and a heating and ventilating system. Ten hours per week. Required of students in Mechanical Engineering. Reference book:—Carpenter, Experimental Engineering. Prof. McKergow.

257. EXPERIMENTAL ENGINEERING. Theory of errors; calibration and use of instruments; measurement of power; methods of testing power-plant apparatus and the tabulation of results. Required of students in Mechanical Engineering. One hour per week.

Text-book: - Carpenter, Experimental Engineering.

251. Thermodynamics. Efficiency of the piston steam-engine, behaviour of steam in the cylinder, influence of size, speed, rate of expansion, compounding, superheating and steam-jacketing; flow of gases and vapours through orifices and nozzles and applications to the design of steam-turbines; theory and analysis of performance of internal-combustion engines; refrigerating-machine cycles. Required of students in Mechanical Engineering. Two hours per week. Prof. Roberts.

Text-books:—Ewing's Steam Engine (Cambridge Univ. Press); Moyer, Steam Turbines (Wiley); Marks and Davis, Steam Tables and Diagrams (Longmans).

Books of reference:—Stodola, The Steam Turbine (trans. Lowenstein) (Van Nostrand); Clerk, The Gas Petrol and Oil Engine, Part I.

252. Machine Shop. Experimental work and studies for the minimum time required for production, involving a consideration of the best available machine tool speeds, necessary power of belting, most efficient tool angles, quality of metal and the kind of tool steel used. The course includes work in connection with the lathe, the planer, slotter, shaper, miller and turret lathe; and instruction in gear cutting and cutter grinding. Required of students in Mechanical Engineering. Three hours per week. Mr. Gatehouse.

253. Manufacturing Plant Design. Methods adopted in designing a plant for manufacture of a specified product; lay-out of shops; construction of buildings; equipment requirements for power, heat and light; fire protection, general system of operation and cost determination as affecting design of plant. (Optional with Course 90 [Hydraulic

Machines] for students in Mechanical Engineering.) Two lecture hours and one drafting room period per week, second term. Mr. Coote.

Text-book: - Day, Industrial Plants (Engineering Magazine).

254. Works, Organization and Accounting. Analysis of costs of production and establishment charges; elements of factory accounting; factory record systems; depreciation; organization of staff; functions of departments; purchasing systems; methods of remunerating labour; shop organization and equipment as affecting efficiency of production. Work done as far as possible in connection with course 253. Required of students in Mechanical Engineering. One hour per week. Mr. Coote.

Reference books:—Kimball, Principles of Industrial Organization; Cole, Accounts: Their Construction and Interpretation.

## DEPARTMENT OF METALLURGICAL ENGINEERING.

Professor:—Alfred Stansfield.
Lecturer:—Gordon Sproule.
Sessional Lecturer:—Harold J. Roast.
Special Lecturer:—Charles F. Pascoe.
Research Fellow:—D. R. Harrison.

#### Third Year.

261. ELEMENTARY METALLURGY AND LABORATORY. An introductory course in general metallurgy, including metals and alloys, fuels, furnaces, refractory materials, pyrometry and calorimetry, and a short account of the metallurgy of copper, lead, iron and steel.

The instruction consists of lectures during the first term and a short laboratory course in which the following exercises will be carried out, as far as time will permit:—(a) Roasting a sulphide or arsenical ore on a small scale; (b) formation and properties of copper or lead matter and slags; (c) smelting a copper or lead ore in crucibles; (d) melting and casting certain metals and alloys; (e) the use of the electric furnace; (f) leaching a copper or silver ore; (g) elementary exercises in some of the following: pyrometry, calorimetry, tests of refractory materials, microscopic examination of metals, heat-treatment of iron or steel, and some simple mechanical testing methods.

Two lectures a week during the first term and one laboratory period during half of the second term. Dr. Stansfield and Mr. Sproule.

262. ELEMENTARY METALLURGY. The course of lectures as in 261, but without laboratory work, for Chemical Engineering students.

263. FIRE-ASSAYING. The lectures and instruction sheets give an account of the furnaces, balances and other appliances used in assaying; the sampling and preparation of ores; fluxes and reagents; and the methods used in assaying gold, silver and lead ores, copper

and copper ores and mattes; gold and silver bullion and base bullion; cyanide precipitates and solutions.

One lecture a week during the second term for Metallurgical and Mining students. Mr. Sproule.

264. Fire-Assaying Laboratory. The students learn as many of the above-mentioned methods as is possible in the time allotted to this course. Care is taken that a student shall be able to make such assays as would be required at a mine, and with a fair degree of accuracy. Students usually have an opportunity of doing additional fire assaying in their fourth year.

Two laboratory periods a week during the second term, for Metallurgical and Mining students. Mr. Sproule.

Reference book: -E. A. Smith, "Sampling and Assay of the Precious Metals."

265. Metallurgical Calculations. This is an introductory course on the application of exact chemical and physical laws to metallurgical operations, such as the combustion of fuel, the smelting of ores and the construction and heating of furnaces. One lecture a week for Metallurgical students. Dr. Stansfield.

Text-book:—J. W. Richards, "Metallurgical Calculations," Vol. I.

- 266. METALLURGICAL COLLOQUIUM. Metallurgical students are required to read current metallurgical periodicals and to give an account of their reading at the colloquium which is held once a week during the first term. Dr. Stansfield.
- 267. Summer School (Metallurgical Works). Metallurgical students are required to attend the summer school which is held at the end of the third year. In this school visits are paid to metallurgical works both in Montreal and at a distance.

In addition to this, excursions may be made by the class from time to time during the term to such metallurgical works as are within reach.

## Fourth Year.

- 271. METALLURGY (GENERAL).
- (a) The metallurgy of iron and steel.
- (b) The metallurgy of copper, lead, gold, silver, zinc and nickel. Text-books:—Bradley Stoughton, "The Metallurgy of Iron and Steel"; W. Gowland, "The Metallurgy of the Non-ferrous Metals."

Two lectures a week during the session and a few laboratory demonstrations. Dr. Stansfield.

- 272. METALLURGY.
- (a) General advanced metallurgy.

Text-books: — Fulton, "Principles of Metallurgy"; Hofman, "General Metallurgy."

- (b) A more detailed account of the metals mentioned in 271. Reference books:—Hofman, "Metallurgy of Copper"; Collins, "Metallurgy of Lead"; Ingalls, "Metallurgy of Zinc"; Collins, "Metallurgy of Silver"; Stoughton, "The Metallurgy of Iron and Steel"; Forsythe, "The Blast Furnace and the Manufacture of Pig Iron."
- (c) Metallurgical construction and design, and costs of metallurgical plant and operations.

Required of Metallurgical students. Two hours a week during the session. Dr. Stansfield.

- 273. FIRE-ASSAYING AND LABORATORY. A short course for Chemical Engineering students. For particulars see 263 and 264. One laboratory period and one lecture in the first term. Mr. Sproule.
- 274. Metallurgical Laboratory, Thesis Work. This time is devoted to the serious study of some metallurgical problem. Usually two students work together and present a thesis containing an account of an important published work bearing on their subject, as well as the result of their own experimental researches. Required of Metallurgical students. One half-period in the first term and three periods a week during the second term.
- 275. ELECTRO-METALLURGY AND LABORATORY. The course of lectures is devoted mainly to a consideration of the principles and construction of electric furnaces, and their uses for smelting and refining metals. The refining of metals and the recovery of metals from their ores by electrolysis of aqueous solutions is also considered. The laboratory work is arranged to illustrate the lectures. Groups of students operate each of the main types of electric furnace and become familiar with some of the principles of electric furnace construction and design. Two lectures a week and one laboratory period during the second term for Metallurgical students. Dr. Stansfield.

Text-book: - Stansfield, "The Electric Furnace."

- 276. ELECTRO-METALLURGY. A course of lectures as in 275, and a few laboratory demonstrations for Electrical students. Dr. Stansfield.
- 277. METALLURGICAL COLLOQUIUM. One hour a week during the second term is given to informal discussion of research and other work being done in the department, and to other topics of metallurgical interest. Dr. Stansfield.
- 278. METALLURGICAL MACHINERY AND DESIGN. Two periods a week, during the second term, are devoted to drafting and designing metallurgical furnaces and plants. The course includes lectures on metallurgical machinery and design, which are included in 272.
- 270. METALLOGRAPHY AND LABORATORY. A course of lectures and laboratory instruction in the methods of metallography and its use

for controlling the heat-treatment of steel and other metals, and for detecting and explaining defects in metallic materials.

One laboratory period during the second term for Chemical Engineering students. Mr. Roast.

EXTENSION COURSE IN METALLOGRAPHY. Instruction on Metallography is given in the evening by Mr. H. J. Roast and Mr. C. F. Pascoe. For particulars, see page 323.

McGill University Mining and Metallurgical Society.

Students taking the course in Metallurgical Engineering should become members of this Society, which meets at intervals during the session to read and discuss papers by student and graduate members and to hear addresses by practising miners and metallurgists. The Society has been made a students' section of the Canadian Institute of Mining and Metallurgy and its undergraduate members are therefore student members of the Institute and receive all its publications. Papers read before the Students' Society may be entered in competition for all students' prizes offered by the Canadian Institute of Mining and Metallurgy or the Engineering Institute of Canada.

## DEPARTMENT OF MINING ENGINEERING.

PROFESSOR:—JOHN BONSALL PORTER.
ASSOCIATE PROFESSOR:—JOHN W. BELL.
SPECIAL ASSISTANT:—WILLI ERLENBORN.
DAWSON RESEARCH FELLOW:—JAMES E. SAUNDERS.
DOUGLAS RESEARCH FELLOW:—CHARLES LEONARD DEWAR.
HARRINGTON RESEARCH FELLOW:—JAMES B. BROW.

## Third Year.

291. MINING ENGINEERING. The principles and practice of mining.—Introductory, simple mining methods, excavation, explosives and blasting, rock drills, coal cutters, gold washing and dredging, hydraulic mining, quarrying, etc. Two lectures per week in the second term. This course is continued in the fourth year. (See 297.) Dr. Porter.

292 and 295. ORE DRESSING. The theory and practice of ore dressing and coal washing.—The forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the mechanical operations involved; crushing, sizing and dressing machinery—breakers, stamps, rolls, screens, jigs, vanners, tables, flotation apparatus, washers, magnetic separators, etc. Two lectures per week and laboratory. This course is continued in the fourth year. (See 300.) Dr. Porter.

ORE DRESSING LABORATORY. Simple tests of ores, sands and gravels, by means of pan, classifier, jig, table, etc. One afternoon per week in the second term. Further laboratory work in the fourth year. (See 305 and 306.) Professor Bell.

293. MINE MAPPING. The calculations and plotting of mine surveys. One afternoon per week in the first term. Professor Bell.

Tc.rt-books:—H. C. Hoover, Principles of Mining, D. W. Brunton's Safety in Tunnelling, and Peele's Mining Engineer's Handbook.

## Fourth Year.

- 297. MINING ENGINEERING. The principles and practice of mining.—Prospecting, deep wells, diamond drilling, open cut mining, shaft sinking, drifting, underground development and methods of mining, timbering, hauling, hoisting, pumping, lighting, ventilating, etc.; mine accidents and their prevention; general arrangement of plant, stores and dwellings; administration; examination and valuation of mines and mine reports. Three lectures a week. Dr. Porter.
- 298. MINING AND ORE-DRESSING MACHINERY AND DESIGN. The application of mechanical and electrical engineering to mining, ore-dressing and metallurgy.—Machinery for haulage, hoisting, pumping, ventilating, etc.; mine power plants, power transmission, tramways, cableways, compressors, blowing engines, conveyors, cranes, etc.; mine and mill building, head frames, ore bins, lay-out of plant, etc. Two lectures a week and two drafting room periods in the second term for all students in course. Dr. Porter and Professor Bell.
- 299. MINING AND ORE-DRESSING MACHINERY (ADVANCED). The application of electrical engineering to mining and ore-dressing.—This course is supplementary to 298 and is given to students electing to take alternative (a) and therefore omitting course III. One lecture per week for the session or two lectures in one term. Dr. Porter.
- 300. Ore-Dressing and Milling. Continuation of the ore-dressing course of the third year. Gold and silver milling, amalgamation, cyaniding, flotation, etc., concentration plants, coal breakers and washers, general conclusions regarding plant design and lay-out. Two lectures a week in the first term. Dr. Porter.
- 301. Mining Colloquium. One hour a week is given to the presentation and discussion of papers on the work being done in the department and to other matters relating to mining and ore-dressing. Students are required to take a leading part in these exercises.
- 305. ORE-DRESSING LABORATORY. Two mornings per week in the first term are given to the ore-dressing and hydraulic laboratories. This time is chiefly assigned to ore-dressing, and certain typical operations are carried out. The exercises in ore-dressing are a continuation of the third year laboratory work, but are arranged as far as possible for individuals rather than groups of students. They comprise experiments in crushing, classifying, jigging, slime treatment, magnetic separation, cyanidation and amalgamation, coal washing, etc.
- 306. Ore-Dressing Laboratory and Thesis Work. In the second term one whole day and one additional morning per week are

given to individual work in the laboratory and to the preparation of a thesis to be filed in the departmental library, and, when suitable, published. Students who complete the work in course 305 before the end of the first term, begin their thesis work without delay.

The subjects available for thesis work are very numerous, and range from purely theoretical investigations in crushing, screening, classification, concentration, flotation, etc., to the experimental determination of the best methods for the treatment of particular ores and coals. Numerous different lots of ore are available in sufficient quantities for work on a comparatively large scale. New ores are constantly being secured.

Text-books:-In addition to the text-books already specified for the third year, students are required to provide themselves with Hamilton's Manual of Cvanidation. In addition to using these formal text-books, students are required to look up a large number of special references and also to make frequent use of the works named below, those marked with a \* being so freely used that they should, if possible, be purchased by each member of the class: Sir C. Le Neve Foster's Ore and Stone Mining; \*Donaldson's Practical Shaft Sinking; \*Brinsmade's Mining Without Timber; Crane's Ore Mining Methods; \*Handbook of Mining Details or the Design of Mine Structures, published by McGraw-Hill Co.; \*Ketchum's Design of Mine Structures; Mayer's Mining Methods in Europe; \*Hughes' Text-book of Coal Mining; Galloway's Lectures on Mining; Boulton's Coal Mining; \*McCulloch and Futers Winding Engines; Behr's Winding Plants for Great Depths; Saunders' Mine Timbering; \*Storms' Timbering and Mining; Peele's Compressed Air Plant; \*Richard's Textbook of Ore-Dressing; Wiard's Theory and Practice of Ore-Dressing, Rickard's Stamp Milling of Gold Ores, Economics of Mining and Sampling and Estimation of Ore in a Mine; Del Mar's Tube Milling and Stamp Milling; \*Thompson's Stamp Milling and Cyaniding; \*Julian and Smart's Cyaniding Gold and Silver Ores; Von Bernewitz Cyanide Practice; \*Meagraw's Details of Cyanide Practice; \*Hoover's Concentrating Ores by Flotation; Rickard's Flotation; \*Handbook of Milling Details; \*The Coal and Metal Miners' Pocketbook; Text-book of Rand Metallurgical Practice, Vols. 1 and 2.

## Research Fellowships and Advanced Courses.

Special courses of instruction are offered to graduate students in mining and ore-dressing. These courses include lectures, colloquia and individual work in the laboratories and drafting room. There are three endowed Research Fellowships in the gift of the Mining Department. These are assigned to graduates of the department who show particular aptitude for advanced work.

## LABORATORIES.

The specific laboratory instruction in mining subjects proper begins in the third year, with courses in assaying, elementary metallurgy and ore-dressing. In the fourth year this work is elaborated, the general method of instruction being first to conduct a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make a written report. In this work he is guided by the professors and fellows, and assisted by the other students, whom he must in turn assist when practicable. In this way every student acquires detailed knowledge of certain typical operations and makes at least one original investigation and at the same time gains a fair general experience of many of the important methods in use.

## ILLUSTRATIONS, MUSEUMS, SOCIETIES, ETC.

In addition to a large series of lantern slides, the department owns a collection of over four thousand photographs and other illustrations, and a large and representative library including selected trade catalogues, etc. These collections are constantly being enlarged.

The museums of the building contain suites of ores, concentrates, fuels, and metallurgical materials, models of mines and furnaces, and collections of finished products.

The McGill University Mining and Mctallurgical Society and the Mining Society Camera Club meet at stated periods to read and discuss papers by graduate and student members, and occasionally to hear lectures by gentlemen eminent in the profession. The Society has been made a students' section of the Canadian Institute of Mining and Mctallurgy and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for all students' prizes offered by the Canadian Institute of Mining and Metallurgy, or the Engineering Institute of Canada.

## FIELD SCHOOL IN MINING.

294. The summer vacation field class, instituted in 1898, is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the third year.

The school lasts from four to five weeks, depending on where it is held. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder to an examination of ore-dressing and milling plants and metallurgical establishments. The Professor or the Associate Professor of Mining and other members of the staff go with the party and hold daily demonstrations or classes. The students take notes and sketches

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on the ground, and afterwards are required to work up these notes and to submit a formal report.

During the last twenty years these field parties have visited British Columbia nine times, Nova Scotia six times, Newfoundland and Pennsylvania twice each, and Michigan three times. Numerous visits have also been made to Sudbury, Cobalt and other Ontario localities, while *en route* to more distant points.

The instruction given during this field course is free to all Mining students, the only expense to them being the cost of board, lodging and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by the late Sir William Macdonald, from which deserving students who require aid can have money advanced them by applying to the Professor of Mining.

At the close of the regular work of the field school, arrangements are made with the managers of the mines visited and others to give the members of the party individual employment for the remainder of the summer. All students are earnestly advised to engage in such work, and it is probable that it will be made obligatory at an early date in the future.

## DEPARTMENT OF PHYSICS.

Demonstrators:
V. Henry.
G. H. Henderson (absent).
R. J. Clark.
E. S. Bieler (absent).
L. A. Smith.
L. H. Nichols.
W. C. Quayle.
M. Crowe.
M. Cam.
A. V. Douglas.

The instruction includes a fully illustrated course of experimental lectures on the general principles of physics, embracing in the first year:—The Laws of Energy, Heat, Light and Sound; in the second year, Electricity and Magnetism, accompanied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

## First Year.

311. Heat, Sound and Light. Two hours per week. Tuesday and Thursday mornings. Dr. Shaw.

Text-book:—Duncan & Starling's Heat, Light and Sound (Macmillan's).

312. LABORATORY COURSE. Two hours per week, spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses. See time-table of sections.

 $\mathit{Text\text{-}books}$ :—Laboratory Manuscripts, Barnes & Wheeler (Renouf Pub. Co.).

## Second Year.

315. ELECTRICITY AND MAGNETISM. Two hours per week, Monday and Friday mornings. Dr. Gray.

316. LABORATORY COURSE. Two hours per week. (a) Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection and oscillation; comparison of moments and determination of the elements of the earth's magnetism. (b) Current Electricity.—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers.

Text-books:—Duncan and Starling, Electricity and Magnetism (Macmillan's). Laboratory Manuscripts (Renouf Publishing Co.).

## Fourth Year.

· 320-321. LABORATORY COURSE. Students of Electrical Engineering will continue their work in the Physical Laboratory in the fourth year. The following is a brief outline of the course:—

Magnetic elements and measurements; testing magnetic qualities of iron; theory and practise of absolute measurements; comparison and use of electrical standards of resistance, E. M. F., self and mutual-induction, and capacity; testing and calibration of ammeters and voltmeters; insulation and capacity tests; electric light photometry; electrical properties of thermionic valves.

Wednesday morning at 9. Laboratory, Wednesday morning and afternoon. Dr. King.

Text-book:-Laws' "Electrical Measurements" (McGraw-Hill).

322. ELECTRICAL THEORY. Optional course of lectures for third year students of Electrical Engineering.

325 to 329. ADVANCED COURSES AND RESEARCH. For advanced courses of lectures, see under honour courses in Arts. There are special facilities offered for those desiring to take up research work in heat, optics, sound, electricity and magnetism, and radioactivity.

For course in Engineering Physies, see page 120.

## DEPARTMENT OF SURVEYING AND GEODESY.

Assistant Professors:  $-\begin{cases} A. J. Kelly. \\ James Weir. \end{cases}$ 

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic surveying, in the field work of engineering operations, and in practical astronomy in its application to geodesy. The course is divided as follows:—

## Second Year.

346. Surveying. Chain and angular surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field and office instruments; railway circular curves; planimeter and pantograph; general topography; levelling; contour surveying; stadia surveying; photographic surveying; land systems of the Dominion and provinces. Mr. Kelly.

347. FIELD WORK. (1) Chaining:—(a) Length of pace, (b) distances by pacing, (c) range pole practice, (d) distances with surveyors' and engineers' chains, (e) angles of a polygon with tape, (f) passing an obstacle with chain, (g) obstructed distances with chain, (h) running in a curve with chain, (i) a detail and tie line survey with chain and offset. (2) Levelling:—(a) Differential levelling, (b) contour levelling, (c) profile levelling, (d) levels for determining quantities of excavation for grading, (e) setting grades by the grade rod method, (f) shooting-in grades. (3) Transit Surveying:—(a) Azimuth traversing, (b) deflection angle traversing. (c) intersection of lines with transit, (d) angles of a triangle by repetition. (4) Compass and Micrometer Surveying, (a) Survey of a farm, using chain and compass, (b) traversing with the compass and micrometer, (c) retracing a survey with the compass and chain.

348. Mapping. Drafting from field notes of chain and angular surveys, and the plotting of topographical features. The tinting of maps with water-colours is also included in this course.

### Third Year.

351. MAP PROJECTIONS. Graphical determination of spherical triangles; spherical projections, and the construction of maps. Mr. Weir.

352. Surveying. Theory and use of instruments; hydrographic surveying; the use of the plane table; mining surveying; barometric and trigonometric levelling; elements of practical astronomy. Mr. Kelly.

353. Surveying. Theory and use of instruments; the use of the plane table; mining surveying; magnetic surveying; hydrographic surveying; barometric and trigonometric levelling; theory and setting-out of transition curves; elements of geodetic surveying; elements of practical astronomy. Mr. Weir.

354. FIELD WORK. (1) Level and transit practice, including the adjustments of the instruments; (2) the preliminary, topographic and location surveys for a railway, including simple, compound, transition and vertical curves, profile levelling, cross-sectioning for construction, and plotting of field notes; (3) a topographic survey with the stadia transit and the plane table; (4) a hydrographic survey of a river channel, including measurement of discharge; (5) a survey at night illustrating underground methods; (6) astronomical observations with sextant and engineer's transit.

## Fourth Year.

359. Geodesy. The determination of time, latitude, longitude and azimuth; figure of the earth, measurements of base lines and triangulation systems; adjustment and reduction of observations. Mr. Weir.

361. FIELD WORK. (1) Determination of latitude, (a) by transit and sextant observations of Polaris, (b) by zenith telescope, (c) by noon observations with transit and sextant. (2) Determination of azimuth, (a) by equal altitude observations of the sun, (b) by observations of elongation of Polaris, (c) by observation of a circumpolar star with engineer's transit, (d) by means of solar attachments and solar compass. (3) Determination of time, (a) by equal altitude observations of the sun with sextant and transit, (b) by observations of the meridian passage of stars with astronomical transit. (4) Determination of longitude by clock comparisons. (5) Base line measurements. (6) Precision levelling. (7) Measurement of angles by geodetic methods. (8) Plane table surveys.

360. GEODETIC LABORATORY.

The following determinations of the constants and errors of surveying instruments are made in the geodetic laboratory by the fourth year students in the Civil Engineering course:-(1) Measurement of magnifying power; (2) errors of graduation; (3) measurement of eccentricity of circles; (4) determination of errors of run of theodolite microscopes; (5) investigation of the errors of the graduation of a standard bar; (6) graduating scales with the dividing engine, and comparison thereof on the comparator; (7) investigation of the errors of graduation of circles on the circular comparator; (8) determination of the constants of steel tapes; (9) investigation of the graduation errors of steel tapes on the fifty-foot comparator; (10) determination of the scale value of level vials; (II) investigation of the accuracy of barometers; (12) determination of the collimation error of an astronomical transit by fixed collimators and by nadir method; (13) measurement of inclination error in an astronomical transit by nadir observations.

The determination of gravity by means of the reversible pendulum is experimentally investigated.

The equipment of the surveying department comprises the following, in addition to the apparatus of the observatory and geodetic laboratory:—

Fourteen 6-inch transit theodolites with micrometer microscope attachments; seven portable meridian transits; two zenith telescopes; forty-seven transit theodolites by various makers with mining, gradienter, stadia, and solar attachments; a photo-theodolite; two 8-inch altazimuths; thirty-three dumpy and fourteen wye levels; two gradient-telemeter levels; hand levels and clinometers; four precision levels; seventeen surveyors' compasses; one miners' dial; prismatic compasses; pocket compasses; twenty-one marine sextants and artificial horizons; box sextants; two reflecting circles; seven plane tables; five current meters; Rochon micrometers; double image micrometers; heliotrope; barometers; one 100-ft. Invar tape; 300-ft. and 500-ft. steel tapes, suitable for base measurements; steel chains and steel bands; linen and metallic tapes; sounding lines; pickets; levelling rods; micrometer targets; station pointer; pantograph, planimeters; slide rules and other minor appliances.

## FIELD WORK.

Field work is required of all students entering the second year, of students of the third year in the courses of Civil and Mining Engineering, and of the fourth year in the Civil Engineering course. The work for students entering the second and third years will begin in 1922 on May 1st, and will continue for four weeks.

The fourth year field class for students in the Civil Engineering course will, as usual, be held in September, commencing in 1921 on the 5th, and continuing for four weeks.

A special summer course for students entering the second year of the Faculty from other universities and from other faculties will be conducted in conjunction with the fourth year field class during the month of September, 1921.

Students entering the third year, Civil and Mining Engineering courses, from other universities and from other faculties may attend, instead of the regular course in May, a special class in Railway Surveying during the last two weeks in September. This course will begin in 1921, on September 19th. The balance of the field course for these students will be deferred until May, 1922, when they will attend for a period of two weeks the regular survey class held during that month.

All students are required to keep complete field notes, and to prepare maps, sections and estimates for their own surveys. This

office work is principally done during the regular summer school session.

EXAMINATION FOR LAND SURVEYORS:—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying may have his term of apprenticeship shortened to one year for the profession of land surveying.

Text-books and books of reference:—Johnson and Smith's Theory and Practice of Surveying, Greene's Practical and Spherical Astronomy, Hosmer's Practical Astronomy, American Ephemeris and Nautical Almanac. Baker's Engineering Surveying Instruments, Breed and Hosmer's Principles and Practice of Surveying, Turnbull's Underground Surveying, Durham's Mine Surveying, Reports of the Canadian and United States Geodetic Surveys.

# REGULATIONS CONCERNING PREREQUISITE SUBJECTS.

# REGISTRATION, STANDING AND PROMOTION.

- (1) Students proceeding to a degree shall be classed as Undergraduates or Conditioned Undergraduates. Undergraduates are those who, having passed all entrance requirements, have also at the close of any session passed the examinations in all the subjects of their course, or who at the opening of the following session have removed all conditions by passing supplemental examinations in the subjects in which they failed. Conditioned Undergraduates are those who have failed to remove their conditions as above.
- (2) No student proceeding to a degree shall be allowed to take any subject, unless he has previously passed, or secured exemption in, all prerequisite subjects.\*
- (3) No Conditioned Undergraduate shall be permitted to take any second year subject until he has passed, or secured exemption in, all matriculation requirements, and similarly, no third or fourth year work may be undertaken until all first or second year subjects respectively shall have been passed.

The Faculty may, however, waive this rule in special cases on recommendation of the Committee on Registration, Standing and Promotion.

- (4) Conditioned Undergraduates proceeding to a degree must follow a course of study approved by the Faculty on the recommendation of the Committee on Registration, Standing and Promotion. They may be required to repeat subjects in which they have passed, but in which their standing has been low.
- (5) Partial students are those who are not proceeding to a degree. Such students may be admitted to classes without regard to the prerequisite rule, provided that they have obtained the permission of the head of each department concerned, and have also had their courses approved by the Committee on Registration, Standing and Promotion.

Concurrent subjects are related subjects which should be studied in the same session.

<sup>\*</sup> Prerequisite subjects are those which, in the opinion of the Faculty, must be mastered before the subjects to which they are prerequisite can be intelligently studied.

(6) If a partial student wishes to obtain undergraduate standing in order to proceed to a degree, he shall not be given credit for subjects taken in contravention of the prerequisite rule until he has also passed examinations or secured exemptions in such prerequisites as may be demanded by the Committee on Registration, Standing and Promotion, and, on the recommendation of this Committee, has had his case approved by a unanimous vote of the Faculty.

No student who has failed to remove all his conditions by the beginning of the second term of the fourth year shall be permitted to graduate with his class.

List of subjects in the Faculty of Applied Science with the numbers of subjects which are prerequisite and concurrent.

No.	YEAR	SUBJECT	Prerequisite	CON- CUR- RENT
1	II	Arch. Design A	18, 33, 38	6
2	III	" " B	1,	7
3	IV	" " C	2	8
4	V	_" " D	3	
5	Ī	Elements of Architecture		
6	II	Elements of Composition		
7	III	Theory of Design	1	
8	IV	Theory of Planning	1	
9	III or IV	Ornament and Decoration	34, 39	
10 11	III or IV		34, 39	
12	III or IV III or IV		34, 39	
13	III or IV		34, 39	
14	ıİ	General History (Arts II) History of Arch. (Classic)		9.4
15	III or IV	" (Mediaeval)	13	3 <del>4</del> 35
16	III or IV	" (Renaissance)	13	36
17	V V	" (Modern)	14	90
18	ľ	Architectural Geometry I		
19	ΙĪ	Arch. Geometry II	18	
22	Ϊ́V	Hygiene of Buildings.		
23	ĨV	Heating and Ventilation		
24	II	Heating and Ventilation Building Construction		
25	II	Building Details		24
26	II	Architectural Engineering I		
27	II	Arch. Engineering I (Draughting)		26
28	III or IV	Architectural Engineering II A	26	
29	III or IV	Arch. Eng. II A (Draughting)	26	28
30	III or IV	Architectural Engineering II B	26	
31	III or IV	Arch. Eng. II B (Draughting)	26	30
32 33	V	Professional Practice		_
34	Ţ	Architectural Drawing		5
35	II	u		
36	IV			
37	v			
38	ľ	Historical Drawing Freehand Drawing		
39	ÍΙ	" "	38	
40	III	u u		
41	IV		40	
42	ĪV	Modelling		
43	V	u .	42	
44	I	Physics (Arts)		
45	I	Physics (Arts) Physics Lab. (Arts)		
46	II	Architectural Essay		
47	III	" "		
48	IV	<i>u u</i>		
49	V	α α		
50	III, IV, &	C 177 1		
-1	V	Summer Work		
51	II	General Chemistry	311, 312	52
52	II	Gen. Chem. Lab. (Eng. Students)	311, 312	51
54	III	Inorg. Qual. Anal.—Summer School		
		(Chem., Eng. and Met. Eng. Stu-	-1 -0	
- 1		dents)	51, 52	55

No.	YEAR	SUBJECT	Prerequisite	CON- CUR- RENT
	111	Inorg. Qual. Anal. Lab.—Summer		
55	111	School (Chem. Eng. and Met.		
		Eng. Students)	51, 52	54
56	III	Organic Chemistry Lab	51, 52	57 56
57 58	III	Physical Chemistry	51, 52	50
59	iii	Inorg. Qual. Anal.	51, 52	60
60	ÎÏÎ	" " Lab		59
61	III	" Quant. "	51	62 or 6
62	III	LaD	56, 57	61 65
64	IV IV	Advanced Organ. Chem	56, 57	64
65 66	IV	Physical Chem. and Lab	58	0.1
67	IV	Inorg. Lab	61, 62	
68	IV	Industrial Chemistry, Inorganie	61, 62	
69	IV	Industrial Chemistry, Organie	61, 62 51, 52	
70	IV	Applied Electro-Chem	59, 60	
$\frac{71}{72}$	IV IV	Adv. Inorg. Chemistry	58	
73	ĬŸ	Food Chemistry	56, 57	66
74	ĨŸ	History of Chemistry	51, 56	
75	IV	Colloid Chemistry	56, 57, 58, 59, 60	
81	II	Materials of Construction	194	198
83	III	Mechanics	83, 198	130
86 87	III	Strength of Materials	83, 198	
88	iii	" " Lab		87
89	III	Foundations and Masonry		87
90	III	Structural Engineering	00 046 047 040	87
92	III	Railway Eng.	83, 346, 347, 348	92
93 94	III IV	Theory of Structures	86, 87	1 32
95	IV	Strength of Materials	86, 87	
96	Ο	Bridge Design	90	94
97	III & IV	Hydraulies	83	0.7
98	III & IV	" Lab	86	$\begin{vmatrix} 97 \\ 97 \end{vmatrix}$
99	IV IV	" Machines	00	97
$\frac{100}{101}$	IV	Hydraulies and Lab. (Short Course)	83	"
111	III & ÎV	Elements of Elee Eng	198. 315. 316	
112	III & IV	Elec, Eng. Lab. (Elementary)		111
113	III	Electrical Engineering	198	113
114	III	Elec. Eng. Lab. Electrical Engineering.	113, 114, 201	
117 118	IV	Elec. Eng. Lab. (Elec. Eng. Students)		
120	IV	Elee. Light and Power Distribution		117,1
121	iv	Electric Traction		117,1
122	IV	Electrical Designing		117,1
123	IV	Applications of Electricity		
124	IV	Elec. Photometry and Illumination. English Composition		
$\frac{131}{132}$	li li	Summer Reading		
133	111	Summer Reading or Essay		
134	IV	Summer Essay	. 1	
141	iii	Geology, General		
142	III	Mineralogy Mineralogy, Determinative	51	
143	III	Petrography and Lab	141	

No.	YEAR	SUBJECT	Prerequisite	CON- CUR- RENT
147 148 149 151 152 153 171 172 175 191 193 194 197 201 211 212 213 214 215 221 221 221 221 221 222 223	IV IV IV IV IV IV IV IV II I I I I I I	Petrography (Advanced) Ore Deposits and Economic Geol Geology of Canada Crystallography Geology, Historical Geology Fieldwork (with 294) Economics Engineering Economics Engineering Law Geometry Algebra Trigonometry Mechanics Analytic Geometry Calculus Calculus Calculus Carpentry and Wood Turning Smith Work Foundry Work Shop Methods Mechanics of Machines Machine Shop Work Shop Methods Mech Eng. Laboratory Mechanics of Machines Mechanics of Machines Machine Shop Mork Shop Methods Mechanics of Machines Mechanics of Machines Machine Shop Mork Mechanics of Machines Machine Design	141, 142, 143 171 192 192 198 191, 192, 194 83, 218	198 226 87, 231
226 227 228	III III	Mech. Eng. (General Course)	51 51	or 232 228 228 226, 227
229 231 232 233 234 235 236 237 240 241 242 243 244 245 246 247 249 251 252 253 254 257 261 263 263 264	HII	Thermodynamics. Mech. Drawing (Mech. Eng. Stud.)  " " (Elec. Eng. Stud.)  Smith Work (Summer School).  Foundry Work (Summer School).  Pattern Making. Machine Shop Work Shop Processes and Management Mechanics of Machines. Designing. Mach. Design (Mech. Students). Mach. Design (Elec. Students).  Power Plant Design. Locomotive Engineering. Marine Engineering Heat. and Ventilation of Buildings. Mech. Eng. Lab. Thermodynamics. Machine Shop Work. Manufacturing Plant Design. Works Org. and Accounting. Experimental Engineering. Elem. Metal. (Chem. Eng. Stud.)  Fire Assaying. Fire Assaying Laboratory.	51, 198.  213 214 212 220 234 225, 231 227 227 227 227 227 227, 228 228, 229 236 237 227, 228 236 237 227, 228 51 51 51 51 52 51, 52	242 242 244 244 244 244 244 263

No.	YEAR	SUBJECT	Prerequisite	CON- CUR- RENT
265	III	Metall. Calculations		261
266	III			261
267	IV	Summer School (Metall, Works) Metallurgy (General)	261	
$\frac{271}{272}$	IV IV	" (Metall. Students)	261	271
$\frac{272}{273}$	IV	Fire Assay, & Lab. (Chem. Eng. Stud.)		211
274	IV	Metall. Lab. Thesis	261	271
$\frac{274}{275}$	IV	Electro- Metallurgy and Lab.	51	211
276	ÍV	" (Elec. Stud.)		275
277	ÍV	Metall. Colloquium	261	271
278	îÿ	Metall. Machinery and Design	261	271
279	îv	Metall. and Lab. (Chem. Eng. Stud.)		
291	iti	Mining Engineering		
292	iii	Ore Dressing and Laboratory	51	
293	III	Mine Mapping	346, 348	
294	III	Mining Field School	141	
295	HI	Crushing and Grinding Machinery		
297	IV	Mining Engineering	291	
298	IV	Mining Machinery and Design	81, 226, 300	297
299	IV	Mining Machinery (Advanced)	315	
300	IV	Ore Dressing and Milling	292	207 0
301	IV	Mining Colloquium		297,3
305	IV	Ore Dressing Laboratory	292	300
306	IV	Ore Dressing Lab. (Thesis Work)	204, 305	1
311	Ĭ	Physics		311
312	I	Physical Laboratory		311
315	II	Physics		315
316	II IV	Physical Laboratory. Physics (Electrical Engineering)	315 316	010
320 321	IV	Physical Laboratory (Elee, Eng.)	010, 010	320
341	I	Descriptive Geometry		
342	İ	Freehand Drawing		
343	Ī	Lettering		
345	ÎI	Descriptive Geom. and Perspective.	341	İ
346	ΪÎ	Surveying		
347	îî	Surveying Fieldwork		1
348	îi	Mapping Map Projections	342, 343	
351	III	Map Projections	341, 345	
352	İİİ	Surveying (Miners)	.   340, 347	1
353	liii	Surveying (Civils)	346, 347	
354	îii	Surveying (Fieldwork)	349,347	
359	IV	Geodesy.	351	
360	IV	Geodetic Laboratory		359
361	IV	Geodetic Fieldwork	353, 354	
400	IV.	Military Science		. ]

# EXAMINATION TIME TABLES—FACULTY OF APPLIED SCIENCE

(Subject to Revision)

I.—Supplemental Examinations.

Supplemental examinations for all subjects of the Pirst, Second and Third Years Applied Science are held in September. A schedule of these examinations may be obtained from the Dean.

II.—Sessional Examinations.

Nore.—The following numbers correspond with the subjects in the prerequisite list and the departmental descriptions. Examinations begin at Nine A.M. and Two P.M., and normally last three hours.

TIME TABLE, FIRST TERM EXAMINATIONS (Subject to Revision).

Олтк		Pirst Year	SECOND YEAR	Тинь Убли	Рочити Убак	
January 18th.	A.M.	-	-	11-261-351	11-243-300-359	
" "	P.M.	:	:	:	:	
January 19th	A.M.		52	58-86	124-149-263	
99 99	P.M.	:	:	:	67-70	
January 20th	A.M.		197	97-295-352	97-101	
n n	P.M.	42-191	:	:	172	
Junuary 21st	A.M.	13		59-61	68-71-120	
39 39	P.M.	:	:	:	:	
	-					

SECOND TERM TIME TABLE EXAMINATIONS (Subject to Revision).

DATE		FIRST YEAR	SECOND YEAR	Тиівр Уван	FOURTH YEAR
April 18th	A.M. P.M.	341	345	: :	
April 19th	A.M. P.M.	42 193	54-81	59-61-201 $90$	247
April 20th	A.M. P.M.		51 6–52	19–265 8–113–237–292–353	64-146-244-262-320 8-147-151-272
April 21st	A.M. P.M.	5-311	315 26	12–226–227 89–263	12-100-117-251-271 17-72
April 22nd	A.M. P.M.	13	346	28–229 88	69–95–254
April 24th	A.M. P.M.	192		15–87	15-94-123 240-299
April 25th	A.M. P.M.	131	24	141 111–141	30-73-121-249
April 26th	A.M. P.M.	194	198 14	56-291 $171$	23-122-278-298 66-96-242
April 27th	A.M. P.M.	31 215	218	92–224 223–228	67–297 99–253–275
April 28th	A.M. P.M.	18	19–221	142–225	74–257 152–241

III.—TIME TABLES FOR LECTURES

Complete time tables for all lectures and laboratory work are bulletined in the Engineering Building, and copies may be obtained from the Dean of the Faculty of Applied Science.

## FACULTY OF LAW.

## HISTORICAL STATEMENT.

The teaching of law at McGill began in 1848, when a few lectures in law were arranged for students in the Faculty of Arts. In 1853 the Faculty of Law was established with a staff of three members, the Hon. Wm. Badgley, Mr. J. J. C. Abbott and Mr. F. W. Torrance, Mr. Badgley holding the office of Dean. All three subsequently attained distinction. Mr. Badgley and Mr. Torrance both went on to the Bench, while Sir John Abbott entered public life and was for a short time Prime Minister of Canada. For more than half a century the Faculty devoted itself wholly to the training of students who intended to practise law in the Province of Quebec. During this period many of its professors and graduates rose to prominent positions in the public life of Canada, among them being Sir Wilfrid Laurier, who took his degree in 1864.

The appointment of Dr. F. P. Walton as Dean of the Faculty in 1897 marked the beginning of a new development. Hitherto the whole of the teaching staff had consisted of judges and practising counsel in the City of Montreal. Dr. Walton was the first professeur de carrière. He held the chair of Roman Law, and the establishment of a full time professorship did much to bring the Faculty into closer touch with the general life of the University.

In 1914. Dr. Walton resigned to take up an important legal position in Egypt, and was succeeded by Dr. Robert Warden Lee, Fellow of Worcester College, Oxford, who has only recently resigned the office upon his appointment to the new chair of Roman-Dutch Law, founded at Oxford by the Rhodes Trustees. Dr. Lee's chief contribution to the history of McGill lies in his initiation of the policy which aimed at developing the Law Faculty from a purely provincial into a national law school, undertaking to provide the best possible legal education for students from all parts of Canada and elsewhere, while continuing to provide professional education of the highest standard for students intending to practise law in the Province of Quebec. During his tenure of the Deanship a new chair of "Jurisprudence and Common Law" was established in 1919, and this was followed in 1920 by the foundation of a third whole-time chair, with the title of "Constitutional Law."

These developments have involved a large expansion and enrichment of the curriculum. During the past two sessions the arrangements for the teaching on the common law side have necessarily been of a provisional and temporary nature. The regulations now published represent a complete re-organization of the work of the Faculty, and with the opening of the session of 1921-1922 the new curriculum will take a more permanent form.

## COURSE OF STUDY.

The Faculty of Law now aims at giving a sound practical and scholarly education in the principles of:—

THE CIVIL LAW OF QUEBEC.
THE COMMON LAW AND STATUTE LAW OF CANADA.
CONSTITUTIONAL AND MUNICIPAL LAW.
PUBLIC AND PRIVATE INTERNATIONAL LAW.
INSTITUTES OF ROMAN LAW.
THEORETICAL AND COMPARATIVE JURISPRUDENCE.

The courses selected by students will largely depend upon whether they wish to practise law in the Province of Quebec or in some common law jurisdiction. Those who wish to practise in Quebec must be careful to select lectures which will comply with the statutory requirements of the Quebec Bar, a summary of which will be found on page 265. Particulars of the Bar requirements in other provinces can be obtained from the secretaries of the various provincial Bar societies.

Students who desire to obtain a legal education, but do not intend to practise law, will take the course of study prescribed for the degree of LL.B.

Students who wish to enter the notarial profession in the Province of Quebec will consult the Dean as to the course of their studies.

The teaching of several subjects will be mainly conducted according to the case method; that is to say, the principal feature of the instruction will be the free discussion by teacher and students of decided cases and other authorities.

The following classification of the lectures will give an outline view of the teaching provided for civil law and common law students respectively. It is liable to modification from time to time, and students will be at liberty, subject to permission from the Dean, to select lectures from other courses in addition to their own, should they wish to do so.

## B.C.L. Course.

## FIRST YEAR.

Civil Law.

ROMAN LAW.

JURISPRUDENCE AND COMPARATIVE LAW.

REAL PROPERTY (Quebec).

OBLIGATIONS.

LAW OF PERSONS.

CRIMINAL LAW.

CIVIL PROCEDURE (Quebec).

LEGAL HISTORY (Quebec).

Common Law.

JURISPRUDENCE AND COMPARATIVE LAW.

REAL PROPERTY (Common Law).

CONTRACTS.

TORTS.

CRIMINAL LAW.

LEGAL HISTORY (British and Canadian).

LEGAL HISTORY (Quebec).

CIVIL LAW OF OBLIGATIONS.

### SECOND AND THIRD YEARS.

## Civil Law.

REAL PROPERTY (Quebec).
EVIDENCE.
NEGOTIABLE INSTRUMENTS
AND BANKING.
COMMERCIAL SALES.

- \* INSURANCE.
- \*CORPORATIONS.

  BANKRUPTCY AND INSOLVENCY.
- \* PUBLIC INTERNATIONAL LAW. PRIVATE INTERNATIONAL LAW.
- \* AGENCY AND PARTNERSHIP.
- \* SHIPPING AND CARRIERS.
- \* CONSTITUTIONAL LAW.
- \* MUNICIPAL CORPORATIONS.
  WILLS, SUBSTITUTIONS, etc.
  CIVIL PROCEDURE (Quebec).
  MARRIAGE COVENANTS, etc.
- \* LEASE, HIRE, and PRESCRIPTION.
- \* SUCCESSIONS AND GIFTS.

  PUBLIC UTILITIES.

  ROMAN LAW (special topics).

  NOTARIAL LAW (for notarial students only).

## Common Law.

REAL PROPERTY, LAND
TITLES, etc.
EVIDENCE.
NEGOTIABLE INSTRUMENTS
AND BANKING.
COMMERCIAL SALES.

- \* INSURANCE.
- \* CORPORATIONS.

  BANKRUPTCY and INSOLVENCY.
- \*PUBLIC INTERNATIONAL LAW. PRIVATE INTERNATIONAL LAW.
- \* AGENCY and PARTNERSHIP.
- \* SHIPPING and CARRIERS.
- \* CONSTITUTIONAL LAW.
- \* MUNICIPAL CORPORATIONS.
- \* WILLS and ADMINISTRATION. PROCEDURE and PLEADING. DOMESTIC RELATIONS.
- \* TRUSTS.
  - EQUITABLE REMEDIES.
- \* LEGAL DRAFTSMANSHIP.

<sup>\*</sup>Lectures on these subjects will not be given in the session 1921-22.

LL.B. students will take the following subjects:-

## FIRST YEAR.

ROMAN LAW, JURISPRUDENCE, PERSONS, CONTRACTS,
TORTS,
CRIMINAL LAW, and
LEGAL HISTORY.

## SECOND AND THIRD YEARS.

Such subjects as may be arranged for them by the Dean in each case.

Each student will follow the course of study prescribed for him by the regulations of the Faculty. The progress of a student is reckoned by points. Each point represents the successful completion of a course of study involving attendance at lectures for one hour a week during one half-session. For example, a course of study involving attendance at lectures for two hours a week throughout the whole session would have a credit value of four points.

No student will be admitted to the Second Year who has failed to obtain twenty points, and no student will be admitted to the Third Year who has failed to obtain forty points, or who is deficient in any First Year subject. No student will be permitted to proceed to a degree who has not obtained sixty-four points upon his whole course.

A student may attend lectures not exceeding six points in value in any one session in addition to those prescribed for his course. No student can receive credit for such additional courses unless his attendance upon them has been approved by the Dean.

Subject to the approval of the Faculty in each case, a student may obtain credit for not more than seven points for a course of legal study successfully completed by him in the summer session of a law school of sufficiently good standing in Canada or in the United States.

The Faculty desires to impress upon all students who intend to practise law in the Province of Quebec the necessity of obtaining a familiar knowledge of French. In this Province it is essential that a practising lawyer should be able to write and speak French with fluency.

## ADMISSION TO THE FACULTY.

Students who have successfully completed one year in Arts in McGill University will be admitted to the Faculty without further examination. Other students will be required either to pass the Senior Matriculation examination for the University, or to satisfy the Faculty that they have attained a standard sufficient to admit them to the Second Year of the Arts course.

Students who, in addition to complying with the above require ments, have successfully completed at least one year's resident study of law in a recognized law school may be admitted to Second Year standing upon satisfying the Faculty that their standard of attainment is sufficient to justify the granting of this privilege. If necessary, an examination will be held to determine the degree of the applicant's proficiency, and for any such examination a special fee of \$5 per paper will be required.

In exceptional cases students who have successfully completed two or more years' resident study at a recognized law school may be admitted to Third Year standing by special vote of the Faculty.

The attention of students desiring to practise law in the Province of Quebec is called to the fact that the regulations of the Quebec Bar require the whole course of legal study to be pursued at a university within the Province. Such students, therefore, cannot be granted credit for studies pursued at other universities outside the Province.

## REGISTRATION.

All students must register in person at the office of the University Registrar between Monday, September 12th, and Friday, September 16th, both dates inclusive. Students who wish to consult the Dean personally with regard to the course should register not later than Wednesday.

Students registering later than September 16th will be required to pay a late registration fee of \$5.00 at the time of registration. This will in no circumstances be refunded except by special permission of the Faculty.

Students must bring with them at the time of registration the evidence necessary to show that they are entitled to admission into the Faculty.

New students, immediately after completing their registration, are required to attend in the Dean's office for the purpose of signing the admission book of the Faculty. No new student will be entered for any course of lectures until he has signed this book.

## EXAMINATIONS.

There will be a written examination at the end of each session upon the work done during that session. At the final examination questions may be set upon any subject studied by the student during the three-year course. The written examination may be supplemented by an oral examination in cases where the Faculty may consider such action desirable.

At the close of each session all students must present themselves for examination in every subject for which they are registered. No student will be permitted to present himself for examination who has not regularly attended the lectures upon the subject, unless he has been prevented by some necessary cause and his absence has been excused by the Dean.

The pass mark is 50% for each paper and 60% for the whole examination. Successful students will be graded in three classes, and the names of those in each class will be published in alphabetical order.

Subject to the approval of the Faculty in each case, a student who has been prevented by illness from taking certain papers in the sessional examination may be permitted to take supplemental papers on the same subjects in September. A fee of \$5.00 will be payable in respect of each paper. No other supplemental examinations will be granted, but students who have obtained the requisite number of points may be permitted to present themselves again at the close of the next session for examination in the subjects in which they have previously failed.

At all examinations in the Faculty students are at liberty to write their answers either in English or in French.

## PRIZES AND MEDALS.

See page 95.

## DEGREES.

The degrees granted in the Faculty are Bachelor of Civil Law (B.C.L.), Bachelor of Laws (LL.B.), Master of Laws (LL.M.), and Doctor of Civil Law (D.C.L.).

The degree of B.C.L. is granted to those students who successfully follow the course of study, whether in civil law or in common law, prescribed for students who intend to practise the profession of the law. This course extends over three years. The degree of LL.B. will be granted to those students who successfully follow the non-professional course, also covering three years. The amount of work required and the standard of proficiency exacted will be the same for students in either class.

The degrees of LL.M. and D.C.L. are granted under the joint supervision of the Faculty and the Committee on Graduate Studies. The regulations governing these degrees are stated on pp. 338 and 339.

The Faculty strongly recommends to all students who desire to attain distinction in their profession or who wish to take up the teaching of law the advantage of devoting an extra year to special study and preparing a thesis for the degree of LL.M. In the case of students who intend to practise in Montreal a course of special study is compatible with attendance in an office during the greater part of the day.

## PARTIAL STUDENTS.

The Faculty may admit a limited number of suitable persons to attend selected courses of lectures without matriculating in the University. Such permission will only be granted to applicants of at least twenty-one years of age who satisfy the Faculty of their capacity to undertake with advantage the study of law. They will not be allowed to proceed to degrees, but will be entitled to receive a certificate specifying the course of study which they have successfully pursued and the class which they have obtained in the examination.

Partial students will pay fees calculated at \$6.00 per point for the courses which they attend.

### ARTS STUDENTS.

Students of the Third or Fourth Year in the Faculty of Arts who have obtained permission from the Dean of that Faculty may attend lectures and present themselves for examination in the following subjects:—

ROMAN LAW.
JURISPRUDENCE.
OBLIGATIONS.
CONTRACTS.

TORTS.
LEGAL HISTORY.
CONSTITUTIONAL LAW.
PUBLIC INTERNATIONAL LAW.

### LIBRARY.

The Law Library of the University at present contains over 7,000 volumes catalogued and in use, as well as about 5,000 volumes, mainly older works, which are now being catalogued and arranged. The principal reports of Canada, the United Kingdom, and France are taken, as well as a selection of reports from the United States and elsewhere. The annual appropriation for the maintenance of the Law Library has now been largely increased.

There is a small lending library, from which students can obtain text-books for the session on payment of an ad valorem fee.

Students in the Faculty are permitted to use the Library of the Court House, which contains a large number of the principal American reports, both of the Federal and of the State courts. The general Library of the University is also available for the use of law students.

## MOOT COURTS.

Under the supervision of the professors, most courts are held from time to time during the session in order to afford students practice in the preparation and presentation of legal arguments.

## SESSION AND HOLIDAYS.

The session of the Law Faculty consists of thirty teaching weeks, exclusive of examinations, and is divided into two terms of fifteen weeks each. The first term will begin on Monday, September 19th, and end on Saturday, January 14th. It will be interrupted by a fortnight's holiday from December 21st to January 3rd, inclusive. The second term will begin on Monday, January 16th, and will end on Saturday, April 29th. Examinations will be held immediately after the close of the second term.

No lectures will be given on Thanksgiving Day, the date of which is fixed by Order-in-Council; on Ash Wednesday (March 1st), on Good Friday (April 14th), and on Easter Monday (April 17th). There will be no morning lectures on the Feast of All Saints (November 1st) and on the Feast of the Conception (December 8th).

## FEES.

See page 102.

## PROGRAMME OF STUDIES.

Lectures marked \* are intended specially for Civil Law students, and those marked † specially for Common Law students.

## FIRST YEAR LECTURES.

## \* ROMAN LAW.

This course is supplementary to the study of the text of the Institutes of Justinian. It includes a brief historical sketch of Roman institutions and a discussion of the development and final form of the chief rules of Roman substantive law and procedure.

Sandars, Institutes of Justinian; Walton, Introduction to Roman Law; Girard, Manuel Elémentaire de Droit Romain.

Three hours throughout the session.

Mr. Rose.

### CRIMINAL LAW.

This course expounds the principal features of the criminal law of the Dominion, together with an account of criminal procedure and other relevant matters.

Two hours throughout the session. Hon. Mr. Justice Greenshields.

## OBLIGATIONS.

An exposition of the main principles of the law of obligations under the Civil Code, including contracts, quasi-contracts, offences, quasi-offences, the effect, interpretation, and extinction of obligations. Select cases, English and French.

Two hours throughout the session. Hon. Mr. Justice Howard.

## JURISPRUDENCE AND COMPARATIVE LAW.

The object of this course is to explain the nature of fundamental legal ideas and the general relation of law to human society. Attention is drawn to the chief points of comparison between the legal systems of Quebec and the rest of Canada. The following books are recommended:—Salmond, Jurisprudence; Gray, Nature and Sources of the Law; Vinogradoff, Common Sense in Law (Home University Library); Maine, Ancient Law. Other books will be recommended for reading in the course of the lectures.

One hour throughout the session.

Professor Smith.

## † CONTRACTS.

This course treats of the general principles of the English law upon the subject, such as the formation, operation, meaning, and discharge of contracts. It furnishes an introduction to the more specialised study of particular contracts, such as agency, insurance, negotiable instruments, etc.

Caporn, Select Cases on Contracts; other cases as announced. Two hours throughout the session. Professor Smith.

## † TORTS.

An analysis of the general principles of liability in tort, with a more detailed examination of particular wrongs, such as trespass, defamation, conversion, nuisance, etc.

Smith, Select Cases on Civil Liability.

One hour in the first term and two hours in the second term.

Professor Smith.

# † REAL PROPERTY (COMMON LAW), PART I.

A short account of fees simple, life estates, reversions, remainders, etc., leaseholds, subleases and assignments, distress and ejection, sales, registration, deeds, certificates, encumbrances, and the Torrens system. Selected sources and cases.

Two hours throughout the session.

Professor Mackay.

# \* CIVIL PROCEDURE (QUEBEC).

The course of lectures for the first year deals with the articles of the Code (1 to 214 inclusive), which refer to ordinary pleadings, exclusive of incidents. The course deals also with judgments by default to appear or to plead and judgments upon confession (C.P., 418 to 420 and 527 to 548), amendments to pleadings (513 to 526), procedure in summary matters (1150 to 1162), before the Superior and Circuit courts (1120 to 1149), the Commissioner's Court and the District Magistrate's Court (1253 to 1291). It includes the sections

of the statutes dealing with the constitution of the courts and with matters connected with the code of civil procedure, the schedules and rules of practice referring to the above-mentioned articles, and the forms of the most common kinds of pleadings.

One hour in the first term and two hours in the second term.

Hon. Mr. Justice Surveyer.

# \* REAL PROPERTY LAW (QUEBEC), PART I.

Distinction of things; ownership usufruct (C.C., 374-498); modes of acquisition of property (C.C., 583-595).

Three hours in the first term.

Mr. Rose.

\* PERSONS.

This course comprises the subjects covered by articles 18 to 351 of the Civil Code. It includes a study of the Naturalization Act (Canadian) and amendments thereto, and also of the Act abolishing civil death and replacing it by civil degradation (6 Edw. VII, ch. 38). It also comprises such parts of the Code of Civil Procedure as refer to the subjects covered by the Civil Code, such as registers of civil status (1311-1316), family councils and kindred subjects (1331-1361,); and such articles referring to seals, inventories, etc., as may be read in connection with the first book of the Civil Code.

This course is given every year. The subject of marriage has been adjourned to the second and third years, in conjunction with the articles of the Code of Procedure dealing with suits in separation and oppositions to marriage. Articles relating to corporations (C.C., 352 ct scq.), are explained to second and third year students in conjunction with proceedings respecting corporations (C.P., 978 et seq.). Two hours in the first term. Hon. Mr. Justice Surveyer.

# † LEGAL HISTORY (BRITISH AND CANADIAN).

A short course in the history of English legal institutions; early courts, courts of common law and chancery; the High Court of Parliament; the adoption and development of these institutions in Canada. Readings from selected sources.

One hour in the first term.

Professor Mackay.

# \* LEGAL HISTORY (QUEBEC).

This course comprises an outline of the history of law in force in the Province of Quebec, including Constitutional History up to Confederation.

Two hours in the second term.

Mr. Johnson.

# SECOND AND THIRD YEAR LECTURES.

The lectures to senior students are divided into two groups, given in alternate years.

# Subjects Treated in the Session 1921-22.

PRIVATE INTERNATIONAL LAW.

Distinction between the *a priori* and positive methods; sources of the positive law of Quebec on the subject; application and illustrations of the rules for solving conflicts of law; comparison between our jurisprudence and that of England, France, and the United States. One hour throughout the session.

Professor Macdougall.

## \* MARRIAGE COVENANTS AND MINOR CONTRACTS.

The lectures on Marriage Covenants cover Articles 1257 to 1471. inclusive, of the Civil Code. The different possible matrimonial régimes and their consequences, the rights and powers of the consorts, the husband's powers of administration of the family affairs, and of the wife's affairs in certain cases, are also treated. The aim is to make the course as practical as possible, and special attention is paid to the principle that the wife's property cannot be pledged away.

The following Minor Contracts are explained:—Loan (Articles 1762 to 1793 inclusive); Deposit, including sequestration (Articles 1794 to 1829); Life Rents (1901 to 1917); Transaction (1918 to 1926); Gaming Contracts and Bets (1927 to 1928); Suretyship (1929 to 1965), and Pledge (1966 to 1979).

Two hours throughout the session.

Mr. Chipman.

TREAL PROPERTY (COMMON LAW), PART II.

Legal mortgages, old and new, tacking, consolidation, clogs, foreclosure, sale, redemption; equitable mortgages; vendors' liens, mechanics' liens; registered judgments and executions, caveats, restrictions; options; easements and profits à prendre, dedications, licences, etc. Selected cases.

Two hours throughout the session.

Professor Mackay.

## EVIDENCE.

The first term will be devoted to an exposition of the law of evidence as administered throughout Canada, and will include an exposition of the special rules under the Quebec Civil Code and the Code of Procedure.

In the second term Professor Mackay will deal with selected cases illustrative of the law.

Two hours in the first term and one hour in the second term.

Professors Wainwright and Mackay.

## NEGOTIABLE INSTRUMENTS AND BANKING.

In the first term the law under the Dominion Bills of Exchange Act will be explained, together with the related law governing banking and stock transactions.

In the second term Professor Mackay will deal with selected cases illustrative of the law.

Two hours in the first term and one hour in the second term.

Mr. Dale Harris and Professor Mackay.

## \* REAL PROPERTY (QUEBEC), PART II.

The lectures in the session of 1921-22 will deal with the modes of acquiring immovable property.

Two hours in the first term.

Professor Marler.

## \* CIVIL PROCEDURE (QUEBEC).

The advanced course covers, so far as possible, all matters of procedure not dealt with in the first year, and includes incidents, trial by jury, judgments, execution, provisional remedies, prerogative writs, and remedies against judgments, as well as the rules of pleading in the more complicated classes of actions. It is divided into two parts, taken in alternate years.

Two hours in the first term.

Hon. Mr. Justice Surveyer.

## † PROCEDURE AND PLEADING (COMMON LAW).

Forms of action; writs and service; obtaining evidence, inspection, discovery; brief making and preparation for trial; the trial and its officers; examination and cross-examination; judgments, executions, and appeals; extraordinary proceedings. Selected cases and forms.

Two hours in the first term.

Professor Mackay.

## † EQUITABLE REMEDIES.

This course will be chiefly devoted to an analysis of decided cases, illustrating the application of those remedies which originated in the English Court of Chancery before the modern amalgamation of law and equity. Attention will be directed to the historical development of the jurisdiction.

Two hours in the first term.

Professor Smith.

#### COMMERCIAL SALES.

This course covers the fifth title of the third book of the Civil Code, so far as it is applicable to the sale of movables, with a comparison of the rules and remedies of the common law. Selected cases. Two hours in the second term.

Mr. Tyndale.

### BANKRUPTCY AND INSOLVENCY.

This course deals with the Dominion and Provincial law upon the subject, particularly the Dominion Bankruptcy Act, and includes an account of the winding-up of companies.

Two hours in the second term.

Hon. Mr. Justice Martin.

# \* WILLS, SUBSTITUTIONS, AND TRUSTS.

A brief outline of the principles of the Civil Code upon these subjects, arranged in accordance with the Code.

Two hours in the second term.

Mr. Beullac.

## † DOMESTIC RELATIONS.

This course deals with the relations of parent and child, guardian and ward, husband and wife; marriage and divorce; special personal disabilities. Selected cases.

Two hours in the second term.

Professor Smith

## ROMAN LAW.

The lectures for senior students will deal with special topics in the Roman Law; details will be announced later.

One hour in the second term.

Mr. Rose.

### \* PUBLIC UTILITIES.

An account of the law administered by the Public Utilities Commission of the Province of Quebec under ss. 718-768 of the Revised Statutes.

One hour in the second term.

Mr. Rinfret.

# Subjects Treated in the Session 1922-23.

## INSURANCE.

This course deals with the fifth title of the fourth book of the Civil Code, the principles of which are similar to those of the common law, and with Federal and Provincial statutes upon the subject of insurance.

Mr. Tyndale.

## SHIPPING AND CARRIERS.

Merchant shipping, including the jurisdiction and procedure in the Court of Admiralty, carriers of goods and carriers of passengers.

Mr. Dale Harris.

## \* SUCCESSIONS AND GIFTS.

A brief outline of the principles of the Civil Law upon these subjects, arranged in accordance with the Quebec Code. Mr. Beullac.

### PUBLIC INTERNATIONAL LAW.

Nationality, naturalization, aliens, immigration; marginal seas and inlets, river systems; vessels; diplomatic agencies, methods and practices; the laws of war, contraband, continuous voyages, blockade, etc.; the Monroe Doetrine; the Hague conventions; the Treaty of Versailles, and the League of Nations. Selected sources and cases; Moore, Digest of International Law.

Professor Mackay.

## CONSTITUTIONAL LAW.

Constitutional relations between the United Kingdom and Canada; the Crown; the Colonial Laws Validity Act, 1865; applicability of English law to colonial conditions; the Quebec Act of 1774; the Judicial Committee; the British North America Act and its framework. The greater part of this course will be devoted to an analysis of cases decided under ss. 91-92 of the B.N.A. Act.

Professor Mackay.

## \* LEASE, HIRE, AND PRESCRIPTION.

The lectures on Lease and Hire take in Articles 1600 to 1700 of the Civil Code, and explain the general principles and obligations of the parties in connection with the lease of houses and of work. The subject of carriers, so far as the Code governs it, is dealt with; building contracts and the responsibilities of architects and contractors are also discussed.

The lectures on Prescription cover Articles 2183 to 2270, inclusive. of the Civil Code. They point out the relationship between the principles of prescription and those of estoppel and fin de non recevoir. The principles of possession, interruption, suspension, and renunciation are dealt with; and the time required, as well as the effects of good faith in certain cases.

Mr. Chipman.

## AGENCY AND PARTNERSHIP.

This course explains the principles of the law on these subjects as laid down in the Civil Code, with a comparison of the common law rules.

Mr. Johnson.

## \* MUNICIPAL LAW.

These lectures cover the Municipal Code of 1916, the Cities and Towns Act (R.S.Q., ss. 5256-5884), and a general outline of other statutes connected with municipal matters.

Mr. Rinfret.

## \* CIVIL PROCEDURE (QUEBEC).

The lectures in 1022-23 will deal with such parts of the advanced course as are not covered in the session of 1921-22.

Hon. Mr. Justice Surveyer.

## † TRUSTS.

History, nature, and classification of trusts; resulting, constructive, possessory, and charitable trusts; conversion and investment; duties and liabilities of trustees; following trust funds; trust companies; the modern trust. Selected cases and statutes.

Professor Mackay.

# \* REAL PROPERTY (QUEBEC).

The lectures given in the session 1922-23 will deal with privileges on immovables, hypothecs, servitudes, etc. Professor Marler.

## † LEGAL DRAFTSMANSHIP.

The object of this course is the analysis, comparison and composition of typical legal documents generally used in practice, such as commercial contracts, agreements for the sale of land, articles of partnership, company forms, etc. Specimen forms will be studied as under the case method of instruction.

Professor Mackay.

# † REAL PROPERTY (COMMON LAW).

Lectures will be given on special topics not treated in the previous session.

Professor Mackay.

## CORPORATIONS.

Organisation of companies under the Dominion and Provincial statutes; nature of varous securities; rights and powers of directors and shareholders; amalgamation and reorganization. (Winding up is dealt with in the course on Bankruptcy.)

Hon. Mr. Justice Martin.

# ADMISSION TO THE PRACTICE OF LAW IN QUEBEC.

The attention of students who wish to be admitted to the Bar or to the notarial profession in Quebec is drawn to the following summary of the statutory provisions governing the practice of law in the Province:—

# I. REGULATIONS APPLICABLE TO THOSE WHO INTEND TO BECOME MEMBERS OF THE BAR.

N.B.—The articles are here abridged.

Article 4522 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations are held alternately in Montreal and Quebec

The examinations are held alternately in Montreal and Quebec every six months; namely, at Montreal, on the second Tuesday of each January, and at Quebec, on the first Tuesday of each July.

All information concerning these examinations can be obtained from the Secretary-Treasurer of the General Council. The present

General Secretary is Mr. Victor Martineau, K.C., 66 St. James Street, Montreal.

Article 4524.—Candidates must give notice, as prescribed by this article, at least one month before the time fixed for the examination, to the Secretary of the section in which he has his domicile or in which he has resided for the past six months.

Article 4475.—This article provides that candidates holding the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Letters, from any Canadian or British University are dispensed from the examination for admission to study. Such candidates are required to give the notice mentioned above.

Article 4526 R.S.Q. (as altered by by-law of the General Council). —On giving the notice prescribed by Article 4524, the candidate pays the Secretary a fee of \$2.00, and makes a deposit of \$125.00 for a complete certificate of admission to study; of \$70.00 for a partial certificate of admission to study; and of \$200.00 for admission to practice, which deposit, less \$30.00, is returned in case of his not being admitted.

Article 4531.—To be admitted to practice, the student must be a British subject and must have studied regularly and without interruption during ordinary office hours, under indentures entered into before a notary, as clerk or student with a practising advocate during four years, dating from the registration of the certificate of admission to study. This term is reduced to three years in the case of a student who has followed a regular law course in a university or college in this Province and taken a degree in law therein.

The By-laws passed by the General Council of the Bar of the Province of Quebec provide as follows:—

Article 51.—A course of lectures on law given and followed at a university or law school of this Province, and the diploma or law degree conferred on students by such university or law school, shall count with reference to the Bar Act, only if the course of study hereinafter outlined has been effectively followed by the university or law school and by the holder of the diploma. (R.S.Q., ss. 1483, \$4531.)

Article 52.—A regular law course in a university or law school of this Province consists of seven hundred and eighty-five lectures of one hour each. These lectures are given on the various subjects in the following proportions:—

ROMAN 'Law:—103 lectures:—This course comprises an introduction to the study of law, with explanatory remarks and comments on the Institutes of Justinian and on the principal Roman jurisconsults.

CIVIL, COMMERCIAL AND MARITIME LAW:—413 lectures.—The course on these subjects must cover a period of at least three years. It comprises the history of French and Canadian law, explanatory remarks and comments on the Civil Code and on the statutes respecting commerce and shipping.

CIVIL PROCEDURE:—103 lectures:—This course must extend over at least two years. It comprises explanatory remarks and comments on the Code of Civil Procedure and of its statutory amendments, a study of the organization of the civil courts of this Province and the history of the different judicial systems of the country; also the special modes of procedure provided by the statutes and by the by-laws in general, as well as the Bar Act and the By-laws regarding the discipline of the Bar.

Public and Private International Law:—21 lectures:—This course comprises an historical outline, the sources of this law and of its subject matter, its objects (primary and secondary rights of sovereign states), rules of war, commercial and extradition treaties, etc., in force in Canada, as well as the rights and obligations of the citizens of the Province of Quebec and of Canada, and of aliens in the event of conflict of laws.

CRIMINAL LAW:—69 lectures:—This course comprises the history of Canadian criminal law, the organization of the criminal courts, criminal procedure, comments on the criminal law of the country, a comparative study of English and Canadian criminal law. The lectures shall extend over two years.

Constitutional and Administrative Law:—41 lectures:—This course comprises an enquiry into the different constitutional enactments and public institutions of the country, the powers, the organization, the procedure of the Federal Parliament and of the Provincial Legislatures, the laws on Education, and the Municipal Code.

Comparative Law:—30 lectures:—This course comprises a concise enquiry into the English common law, and a general knowledge of the main principles underlying the civil and commercial laws of the other Provinces of Canada.

Articles 53.—The candidate for admission to practice who has obtained a law degree, from a university or law school of this Province, must file, together with this notice, a certificate from the principal or head of such university or law school establishing that he has followed a law course in such university or law school during at least three years in conformity with the Bar Act, and moreover specifying the number of lectures he has actually attended in each subject comprised in the foregoing curriculum during each of the three years and during the three years as a whole.

Article 54.—The examiners must refuse to accept such degree as valid under the provisions of the Bar Act, if they are of the opinion that the course of study hereinabove outlined has not been effectually followed by the candidate.

# II. REGULATIONS APPLICABLE TO THOSE WHO INTEND TO BECOME NOTARIES.

For the regulations applicable to candidates for the notarial profession, see Revised Statutes of Quebec, Articles 4774-4807.

# TIME TABLES OF LECTURES

# First Term-19th September to 14th January

First Year Lectures	
Obligations Prof. Howard W., F.  *Persons Prof. Surveyer Tu., Th.  *Civil Procedure Prof. Surveyer S.  *Roman Law Mr. Rose M., W., F.	8.30 a.m. 8.30 a.m. 8.30 a.m. 9.30 a.m.
Criminal Law Prof. Greenshields. Tu., Th. †Contracts Prof. Smith Tu., Th. †Legal History (British	9.30 a.m. 10.30 a.m.
and Canadian) Prof. Mackay F. Jurisprudence Prof. Smith Tu. *Real Property Mr. Rose M., W., F. †Real Property Prof. Mackay Tu., Th. †Torts Prof. Smith F.	10.30 a.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 5.00 p.m.
SECOND AND THIRD YEAR LECTURES	•
*Marriage Covenants Mr. Chipman M., W. Bills and Banking Mr. Dale Harris Tu., Th. †Equitable Remedies Prof. Smith M., W. †Real Property, etc. Prof. Mackay Tu., Th. †Procedure and Pleading Prof. Mackay M., W. *Real Property Prof. Marler M., W. *Civil Procedure Prof. Surveyer M., W. Evidence Prof. Surveyer M., W. Evidence Prof. Wainwright Tu., Th. Private International Law Prof. Macdougall F.	8.30 a.m. 8.30 a.m. 9.30 a.m. 9.30 a.m. 10.30 a.m. 4.00 p.m. 5.00 p.m. 5.00 p.m.
	-
Second Term—16th January to 29th Apri	.1
FIRST YEAR LECTURES  Legal History (P.Q.)Mr. JohnsonM., W. *Civil ProcedureProf. SurveyerTu., Th., S.	8.30 a.m. 8.30 a.m.
†Real Property Prof. Mackay M., W. Criminal Law Prof. Greenshields Tu., Th. †Torts Prof. Smith Tu., Th. **Roman Law Mr. Rose M., W., F. Jurisprudence Prof. Smith Tu. Obligations Prof. Howard M., W. †Contracts Prof. Smith Tu., Th.	9.30 a.m. 9.30 a.m. 4.00 p.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m.
Criminal Law Prof. Greenshields Tu., Th. †Torts Prof. Smith Tu., Th. *Roman Law Mr. Rose M., W., F. Jurisprudence Prof. Smith Tu. Obligations Prof. Howard M., W. †Contracts Prof. Smith Tu., Th.	9.30 a.m. 4.00 p.m. 4.00 p.m. 4.00 p.m. 5.00 p.m.
Criminal Law Prof. Greenshields Tu., Th. †Torts Prof. Smith Tu., Th. †Roman Law Mr. Rose M., W., F. Jurisprudence Prof. Smith Tu. Obligations Prof. Howard M., W. †Contracts Prof. Smith Tu., Th. SECOND AND THIRD YEAR LECTURES *Wills, Substitutions, etc. Mr. Beullac M., W. *Marriage Covenants, etc Mr. Chipman Tu., Th. *Public Utilities Mr. Rinfret F. †Real Property Prof. Mackay Tu., Th.	9.30 a.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 8.30 a.m. 8.30 a.m. 8.30 a.m. 9.30 a.m.
Criminal Law Prof. Greenshields Tu., Th.  †Torts Prof. Smith Tu., Th.  *Roman Law Mr. Rose M., W., F.  Jurisprudence Prof. Smith Tu.  Obligations Prof. Howard M., W.  †Contracts Prof. Smith Tu., Th.  SECOND AND THIRD YEAR LECTURES  *Wills, Substitutions, etc. Mr. Beullac M., W.  *Marriage Covenants, etc Mr. Chipman Tu., Th.  *Public Utilities Mr. Rinfret F.  †Real Property Prof. Mackay Tu., Th.  Cases on Evidence Prof. Mackay F.	9.30 a.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 5.00 p.m. 8.30 a.m. 8.30 a.m. 9.30 a.m. 9.30 a.m.
Criminal Law	9.30 a.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 8.30 a.m. 8.30 a.m. 8.30 a.m. 9.30 a.m.
Criminal Law Prof. Greenshields Tu., Th. †Torts Prof. Smith Tu., Th. *Roman Law Mr. Rose M., W., F. Jurisprudence Prof. Smith Tu. Obligations Prof. Howard M., W. †Contracts Prof. Smith Tu., Th. SECOND AND THIRD YEAR LECTURES *Wills, Substitutions, etc. Mr. Beullac M., W. *Marriage Covenants, etc. Mr. Chipman Tu., Th. *Public Utilities Mr. Rinfret F. †Real Property Prof. Mackay Tu., Th. Cases on Evidence Prof. Mackay F. †Domestic Relations Prof. Smith M., W. Cases on Negotiable Instruments Prof. Mackay W. Bankruptcy and	9.30 a.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 5.00 p.m. 8.30 a.m. 8.30 a.m. 9.30 a.m. 9.30 a.m. 9.30 a.m.
Criminal Law Prof. Greenshields Tu., Th. †Torts Prof. Smith Tu., Th. *Roman Law Mr. Rose M., W., F. Jurisprudence Prof. Smith Tu. Obligations Prof. Howard M., W. †Contracts Prof. Smith Tu., Th. SECOND AND THIRD YEAR LECTURES *Wills, Substitutions, etc. Mr. Beullac M., W. *Marriage Covenants, etc. Mr. Chipman Tu., Th. *Public Utilities Mr. Rinfret F. †Real Property Prof. Mackay Tu., Th. Cases on Evidence Prof. Mackay F. †Domestic Relations Prof. Smith M., W. Cases on Negotiable Instruments Prof. Mackay W. Bankruptcy and Insolvency Prof. Martin M., W.	9.30 a.m. 4.00 p.m. 4.00 p.m. 5.00 p.m. 5.00 p.m. 5.00 p.m. 8.30 a.m. 8.30 a.m. 9.30 a.m. 9.30 a.m.

<sup>\*</sup> For civil law students especially. † For common law students especially.

# FACULTY OF MEDICINE.

The Ninetieth session of the Faculty of Medicine will be opened on Thursday, September 29th, 1921. The regular lectures in all subjects will begin on Monday, October 3rd, at the hours specified in the time tables, and will continue until a date in June to be fixed by the Faculty.

#### FOUNDATION AND EARLY HISTORY.

The Faculty of Medicine of McGill University is the direct outcome and continuance of a teaching body known as the Montreal Medical Institution, which was organized as a medical school in the year 1823 by Drs. Wm. Robertson, Wm. Caldwell, A. F. Holmes, John Stephenson and H. P. Loedel. These men constituted the first medical staff of the Montreal General Hospital, itself established in 1819. The first session of the Montreal Medical Institution opened in November, 1824, with 25 students, and the lectures were given at the house of the Institution, No. 20 St. James Street, a building situated on the north side of St. James Street, at or near Place d'Armes.

In the year 1829, the Montreal Medical Institution became, by the formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University. It is thus the oldest Faculty of the University. The first session of the McGill Medical Faculty took place in the winter of 1829-30, and the first university degree, a medical one, was conferred four years later, in 1833.

There were no sessions held during the political troubles of 1836 to 1839, and it is owing to this fact that this is the ninetieth instead of the ninety-third session of the Faculty, dating from its incorporation with the University in the year 1829.

The work of the Faculty was carried on in the central part of the city until 1872, when a building was provided by the Governors on the University grounds. This building met the demands of the steadily increasing number of students until 1885, when an addition was found to be necessary.

In 1893, and again in 1898, further extensions and alterations were made, funds for the purpose having been provided by generous friends of the Faculty.

On the 16th of April, 1907, a part of these new buildings, together with the original medical building, was destroyed by fire. The wing

containing the principal laboratories and lecture rooms was saved, however, and is now used by the Departments of Physiology and Medical Chemistry.

The erection of a new building was at once begun on a new site, at the corner of Pine Avenue and University Street, and in 1910 the greater part of it was ready for occupation. In 1911 it was wholly available for the work of the Faculty which can now boast of one of the most modern and well-equipped medical buildings on this Continent.

#### MATRICULATION.

For particulars see pages 50 to 62.

#### PHYSICAL EXAMINATION.

For information see page 66.

REGISTRATION.

See page 69.

BOARD AND RESIDENCE.

See page 72.

FEES.

See page 100.

#### REQUIREMENTS FOR LICENCE TO PRACTISE.

Intending students are reminded that a University degree in Medicine does not always give a right to practise the profession of medicine. It is necessary to conform with the medical laws of the country or province in which it is proposed to begin practice. Each province in Canada at present has its special requirements for licence, and in most provinces a special standard of general education is insisted upon before beginning the study of Medicine. Students who intend practising in Canada are warned that in certain of the provinces it is necessary to be registered five years before obtaining a licence to practise. It follows that entrance qualifications must be registered in the province in which the student intends to practise at the beginning of his course in Medicine.

For the convenience of students, a list of names and addresses of the Registrars of the Medical Councils in the several provinces is here given. They should comply with the requirements for registration in one or other of the provinces, before entering on their course in the Faculty of Medicine. QUEBEC.—Dr. J. Gauvreau, Dandurand Bldg., corner of St. Catherine and St. Denis Streets, Montreal.

Ontario.-Dr. H. Wilberforce Aikins, 170 University Avenue,

Toronto.

NEW BRUNSWICK.-Dr. Stewart Skinner, St. John.

Nova Scotia.-Dr. W. H. Hattie, Halifax.

PRINCE EDWARD ISLAND .- Dr. James Warburton, Charlottetown.

NEWFOUNDLAND.-Dr. H. Rendell, St. John's.

Manitoba.—Dr. J. E. Coulter, Winnipeg.

ALBERTA.—C. E. Race, Esq., B.A., Registrar University of Alberta, Edmonton.

SASKATCHEWAN.-Dr. G. A. Charlton, Regina.

British Columbia.—Dr. A. P. Proctor, Vancouver.

### DOMINION REGISTRATION.

In order to take the examinations of the Medical Council of Canada a candidate must have the licence of a Canadian province or he must present a certificate from the Registrar of a Provincial Medical Council that he holds a medical degree accepted and approved of by the Medical Council of said province.

Full information may be obtained by writing to the Registrar, Dr.

R. W. Powell, 180 Cooper Street, Ottawa, Ontario.

## GENERAL COUNCIL OF MEDICAL EDUCATION AND ENREGISTRA-TION OF GREAT BRITAIN.

The Matriculation Examination in Medicine of this University is accepted by the General Medical Council of Great Britain. Graduates of this University who desire to register in England are exempted from any examination in preliminary education on production of the McGill Matriculation certificate. Certificates of this University for attendance on lectures, practical work and clinics are also accepted by the various examining boards in Great Britain. To obtain a licence from the General Council it is necessary to pass one of the examining boards of Great Britain in both primary and final subjects.

Detailed information may be obtained from one of the three registrars: Henry E. Allen, B.A., 229 Oxford Street, London; James Robertson, 54 George Street, Edinburgh; Richard J. E. Roe, 35

Dowson Street, Dublin.

# RECIPROCITY WITH GREAT BRITAIN.

The General Council of Medical Education and Enregistration of Great Britain has entered into reciprocal relations with the Medical Councils of the Provinces of Quebec, Ontario, Nova Scotia, Prince Edward Island, Saskatchewan, Manitoba and New Brunswick. A

holder of a degree in Medicine of McGill University who has obtained the licence of the Province of Quebec, may register with the Medical Council of Great Britain. He will thus be eligible for competitive examination for the Army, Navy and Civil Service, and will be allowed to practise in Great Britain, South Africa, Australia, India and the West India Islands without further examination.

# COURSE OF STUDY FOR THE DEGREE OF M.D., C.M.\* SIX-YEAR COURSE.

FIRST YEAR.

Biology (General Biology and Zoology). Chemistry. Physics. English.

SECOND YEAR.

Anatomy (Gross Anatomy).
Histology and Embryology.
Physiology.
Chemistry (Organic and Biological).

THIRD YEAR.

Anatomy.
Physiology.
Bio-Chemistry (Physiological).
Bacteriology.
Pharmacy.

#### FIVE-YEAR COURSE.

THIRD YEAR.

Anatomy (Neurology).
Physiology.
Pathology (General).
Bacteriology.
Chemistry (Physiological and Clinical).
Parasitology.
Pharmacology.
Medicine (Clinical).
Surgery (Clinical).
Microscopy (Clinical).

<sup>\*</sup> Commencing with the session 1923-24 the course for the degree will consist of two years' pre-medical work (which will be the requirement for admission to the Faculty), four years of purely medical studies and one year in a hospital.

In this year the students visit the hospitals for the first time and receive instruction in small groups in the elements of clinical medicine and surgery.

#### FOURTH YEAR.

Anatomy (Medical and Surgical).
Hygiene.
Medical Jurisprudence.
Pharmacology and Therapeutics.
Medicine and Clinical Medicine.
Surgery and Clinical Surgery.
Obstetrics.
Gynæcology.
Mental Diseases.
Ophthalmology.
Oto-Laryngology.
Pediatrics.
Pathology.

In this year two medical and two surgical theatre clinics are given weekly in the Montreal General and Royal Victoria hospitals. Outpatient clinics are given to groups of students twice weekly in gynæcology and once weekly in ophthalmology and oto-laryngology. In addition, on four days of the week instruction is given to groups at the bedside, in the laboratories, and in the medical and surgical outpatient departments. The work in hygiene consists of lectures, demonstrations and laboratory work.

#### FIFTH YEAR.

Medicine and Clinical Medicine.
Surgery and Clinical Surgery.
Obstetrics.
Gynæcology.
Ophthalmology.
Oto-Laryngology.
Pathology.
Dermatology.

In this year most of the students' time is spent in the hospitals. Theatre clinics are given twice weekly in each hospital in medicine and surgery. There are also daily ward classes to groups of students in these branches. In the out-patient departments of both hospitals clinics are given to groups of students in the various special branches of gynæcology, ophthalmology, oto-laryngology, dermatology, neurology, orthopædics, pediatrics and genito-urinary diseases. Clinics,

ward classes and demonstrations in obstetrics are given in the new Maternity Hospital. Students of the fourth and fifth years attend the Alexandra Hospital in groups for instruction in infectious diseases. The clinical instruction in mental diseases is given in the wards of the Protestant Hospital for the Insane at Verdun.

#### MEDALS, PRIZES AND FELLOWSHIPS.

See pages 93 and 94.

#### **OUALIFICATIONS FOR THE DEGREE.\***

- I. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of six eight-month sessions in this University, or some other university, college or school of medicine, approved by this University (except in the case of those who have already completed the work of the First Year). Students of other universities, so approved, who may be admitted on production of certificates to a like standing in this University shall be required to pass an examination in primary subjects, and all examinations in the final subjects in the same manner as students of this University.
- 2. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to, though not precisely the same as those stated, may be presented and accepted:—

Biology, General Chemistry, Practical Chemistry, Physics, Histology, Embryology, Anatomy and Practical Anatomy, Physiology and Practical Physiology, Organic Chemistry, Biological Chemistry, Physiological Chemistry, Pharmacy, General Pathology, Bacteriology, Clinical Microscopy, Pharmacology, Therapeutics, Medical Jurisprudence, Hygiene and Public Health, Medical and Surgical Anatomy, Operative Surgery, Special Pathology, Morbid Anatomy, Clinical Chemistry, Principles and Practice of Surgery, Clinical Surgery, Theory and Practice of Medicine, Clinical Medicine, Obstetrics and Diseases of Infants, Gynæcology, Pediatrics, Mental Diseases, Ophthalmology, Oto-Laryngology.

He must also produce certificates of having assisted at six autopsies, of having dispensed medicine for a period of three months, of

<sup>\*</sup>It should be understood that the programme and regulations regarding courses of study and examination contained in this calendar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely, for the whole of a student's course, to the conditions here laid down.

having assisted at twenty vaccinations, and of having, under the direction of a properly qualified anæsthetist, administered an anæsthetic at least six times.

Courses of less length than the above will only be received for the time over which they have extended.

- 3. No one will be permitted to become a candidate for the degree who shall not have attended at least one full session at this University.
- 4. Every candidate must give proof of having attended during at least twenty-four months the practice of the Montreal General Hospital or the Royal Victoria Hospital, or of some other hospital of not fewer than 100 beds, approved by this University.
- 5. He must give proof of having acted as clinical clerk for six months in medicine and six months in surgery in the wards of a general hospital recognized by the Faculty, and of having reported at least ten medical and ten surgical cases.
- 6. He must also give proof of having attended for at least nine months the practice of the Montreal Maternity or other lying-in hospital approved by the University, and of having acted as assistant for at least twenty cases.
- 7. Every candidate for the degree must, on or before the 20th day of April, present to the Registrar testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar an affirmation or affidavit that he has attained the age of twenty-one years.
- 8. The examination to be undergone by the candidate shall be in the subjects mentioned on page 274.
- 9. The following oath or affirmation will be extracted from the candidate before receiving his degree:—

#### EXAMINATIONS

Frequent oral examinations are held to test the progress of the student, and occasional written examinations are given throughout the session.

Class examinations are held during the session in each of the first year subjects, the marks obtained being added to the total marks obtained at the final examinations.

If the standing obtained by any student in the class examinations is not satisfactory, he shall not be permitted to take the final examinations.

 A minimum of 50 per cent, in each subject is required to pass and 75 per cent, for honours.

2. The work of one session must be completed and all examinations passed before a student is permitted to advance to the next.

3. Students who fail at the regular examinations in not more than three subjects of the first or second year and in not more than two subjects of the third and fourth years, may, at the discretion of the Faculty, be allowed to take the supplementary examinations before the beginning of the following session. These examinations will be held during the week preceding the regular opening of the session.

Those who fail in more subjects than are above specified are not eligible for supplemental examinations.

4. Students who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

5. Students who fail in one subject only of the final year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

6. Students who fail at the examination held at Christmas may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examinations.

7. A student who, after being registered in the first, second, third or fourth years for three successive sessions, fails to qualify for advancement, or who, after being registered in the final year for three successive sessions, fails to qualify for the degree, shall not be permitted to register again as a student of Medicine in the University.

8. Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination, and they must be accompanied by a fee of \$5.00 for each subject.

#### MICROSCOPES AND HAEMOCYTOMETERS.

Each student is required to provide himself, on beginning his studies, with a first-class microscope for laboratory and private study throughout his course. The Faculty will supply the instruments necessary for demonstrations, etc. The microscope must be of substantial construction and be provided, as a minimum, with the following accessories:— $^{2}/_{3}$   $^{1}/_{6}$  and  $^{1}/_{12}$  oil immersion, and a substage condenser. Such an instrument will last a life-time and is an essential part of the equipment of a practitioner in medicine.

Should the students entering the Faculty of Medicine not be provided with such microscopes, they may purchase new guaranteed instruments through the Bursar's Office of the University for the sum of \$125.00 each.

Each student of the third year is required to have a hæmocytometer, and, in order that an instrument of uniform value and accuracy may be in the hands of all students, the University has purchased a supply, which will be sold at cost price.

# DOUBLE COURSES.

See pages 119 and 125.

# COURSES AND LECTURES.

Details of the work done in the several subjects of the course for the M.D. degree will be found in the special calendar issued by the Faculty.

# FACULTY OF DENTISTRY.

The eighteenth session of the Faculty of Dentistry will be opened on Saturday, October 1st. Regular lectures and demonstrations in all subjects will begin on Monday, October 3rd, at the hours specified in the time tables, and will continue until a date in April, 1922, to be fixed by the Faculty.

The Department of Dentistry of McGill University was organized as a department of the Faculty of Medicine, in the autumn of 1903. This arrangement continued until the session of 1919-1920, when it was established as a separate Faculty.

The lectures and clinical work of the Faculty of Dentistry, for students of the First and Second Years, is carried on in the New Medical Building, where ample room is provided for at least one hundred students.

Splendid opportunities for practical work are provided for the students of the Third and Fourth Years, in the Dental Clinic of the Montreal General Hospital.

#### MATRICULATION.

Students may register in the Faculty of Dentistry after passing the matriculation examination required by McGill University (see pages 50 to 62), but those wishing to practise in the Province of Quebec, except those who hold a degree in Arts from a recognized British or Canadian university, must pass the preliminary examination of the College of Dental Surgeons of the Province of Quebec.

In all fours years the students in Dentistry will take their lectures and practical work in those departments of the University specially qualified and equipped to teach the various subjects.

By arrangement with the Montreal General Hospital, the clinical work of the Third and Fourth Years will be taken at that Institution, where the Dental Clinic forms a part of the Out-Patient Department.

COMBINED COURSE, B.A., D.D.S.

See page 126.

#### FEES.

See page 101.

#### INSTRUMENTS.

See the special calendar of the Faculty of Dentistry.

#### MEDALS AND PRIZES.

See page 95.

#### COURSE OF STUDY.

The course in Dentistry covers four years, as follows:-

#### FIRST YEAR.

Chemistry.
Biology.
Physics.
General Anatomy.
Dental Anatomy.
Prosthetic Dentistry.

#### SECOND YEAR.

General Anatomy.

Physiology.

Dental Histology.

General Histology and Embryology.

Metallurgy.

Prosthetic Dentistry (including crown and bridge technique).

Operative Dentistry.

#### THIRD YEAR.

Materia Medica and Pharmacology.
Operative Dentistry.
Orthodontia Technique.
Bacteriology (lectures and laboratory).
Pathology.
Oral Surgery.

Prosthetic Dentistry (including crown and bridgework).

#### FOURTH YEAR.

The work of the Fourth Year is made as practical as possible in order to fit the student for his life work. Most of the time of this Year is spent in the Dental Clinic doing dental operations for patients.

The lecture work introduced in the Third Year is completed during the Fourth Year. The effort of this final year is to co-relate the lectures and demonstrations of the previous years to the practical work of the Dental Clinic.

#### REQUIREMENTS FOR THE DEGREE.

The degree of Doctor of Dontal Surgery (D.D.S.) will be conferred by McGill University on any student who has fulfilled the following requirements:—

- 1. Has attained the age of 21 years.
- 2. Is of good moral character.
- 3. Has passed all required examinations.
- 4. Has completed the full term of four years.
- 5. Has paid all fees.

For full particulars of the Faculty of Dentistry, consult the special catalogue of the Faculty, a copy of which will be sent on application to the Dean, Dr. A. W. Thornton.

# FACULTY OF MUSIC.

#### LOCAL EXAMINATIONS.

Public local examinations are held yearly at various centres throughout the Dominion by examiners sent out by the University.

These examinations may be looked upon as preparatory to the examinations for diplomas and degrees in Music granted by the University. There are in most of the subjects five grades, and certificates gained in the higher grades will exempt the candidate from certain portions of the examinations for a diploma or degree.

# DIPLOMA OF LICENTIATE IN MUSIC.

The candidate must pass three examinations:-

# First Examination:-

- (a) Rudiments of music, including sight reading and ear tests.
- (b) Harmony in four parts up to, and including, dominant 9th.

  (A practical test will be substituted for performers.)
- (c) Counterpoint in two parts. (Practical test substituted for performers.)
- (d) Chief subject of study.

The possession of the Highest Grade certificate of the local theoretical examinations will exempt candidates in Class I from this examination. In Class II, exemption may be claimed if the candidate has passed the Highest Grade (practical) and the Senior or the Intermediate Grade (theoretical) of the local examinations.

In Class III candidates must hold the Senior Grade (theoretical) and the Highest Grade (practical) certificates in order to claim exemption.

In the Second and Third examinations, between which a year must elapse, the requirements for Classes I and III are, on general lines, similar to those for the first and second Mus. Bac. examinations respectively. In the case of Class II, practical tests are sub-

stituted for many of the theoretical tests. Candidates in Class III will, in the final examination, have to pass in "The Art of Teaching Music," which will be partly viva voce and partly paper work.

In both the Licentiate and Mus. Bac. examinations, considerable latitude is allowed in the choice of a second practical study. Total exemption from examination in it will be allowed if the candidate possesses recent certificates gained in the higher grades of the local examinations in that subject.

Those holding the diploma of L. Mus., obtained either under Class I or Class III, can at any time during the five years immediately following their passing that examination enter for the Mus. Bac. final examination, but they must pass the matriculation examination.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC.

Candidates for the degree must have passed the following examinations:—

- 1. The Matriculation Examination. (See page 52.)
- 2. The First Examination in Music, at the end of the first year.
- 3. The Second Examination in Music, at the end of the second year.
  - 4. The Final Examination.

The particulars of the work for each of the above examinations are as follows:—

# First Examination in Music:-

- (a) Advanced rudiments.
- (b) Harmony in 3 and 4 parts.
- (c) Counterpoint up to 3 parts.
- (d) Form and analysis. Questions will be given on accent, cadence, metre, rhythm, phrasing, etc., and on form, shown in the work of the early classicists (Scarlatti, Bach, Mozart and Haydn).
- (e) General outlines of musical history.
- (f) Chief and second practical study, or, instead of one of these, the composition of a song (or songs) or a miniature suite for piano (or violin and piano or any other combination).

#### Second Examination in Music:-

- (a) Harmony in not more than 4 parts.
- (b) Counterpoint in not more than 4 parts.
- (c) Canon in 2 parts and fugal exposition up to 4 parts.
- (d) History of music from the 16th century to the present day.

- (e) Form and analysis. The candidate must show an intimate knowledge of a few compositions, the names of which will be supplied on application, at least three months before the date of examination.
- (f) Elementary knowledge of acoustics, or physiology of voice.
- (g) Chief and second practical study, or instead of one of these, the composition of:—(1) A movement in sonata form for pianoforte (or piano and violin, or any other combination), or (2) chorus with independent accompaniment, or (3) suite for strings.

# Final Examination in Music:-

- (a) Harmony up to 5 parts.
- (b) Counterpoint up to 5 parts.
- (c) Double counterpoint in 8ve., 10th, and 12th.
- (d) Canon and fugue in 4 parts.
- (e) History of music from the earliest to the present time.
- (f) Form and analysis. A knowledge will be required of such works as the following:—Bach's 48 Preludes and Fugues, Beethoven's Sonatas, Schubert, Schumann and Brahms' Songs, Mendelssohn's Psalms and such Oratorios as Elijah and St. Paul. (The candidate should send in a list of works, in which he or she is prepared to be examined, a few weeks before the day of examination.)
- (g) Instrumentation—a knowledge of the compass and capabilities of all instruments in the modern orchestra, and the scoring of a given passage in a given time, also the reading at sight of a short excerpt from an easy score of an early work by Mozart or Beethoven.
- (h) Chief and second practical study (or in lieu of both of these a composition can be sent in by the candidate containing 4-part chorus, a solo or duet, an unaccompanied quartette and a 4-part fugue.) The whole work (except the quartette) must be scored for stringed instruments in such a way as to show considerable independence between voices and instruments. If preferred, this composition can take the form of a string quartette containing not less than three movements.

Graduates (those holding the degree of Bachelor of Music) of other Universities can be admitted to an ad eundem degree of Bachelor of Music at this University if they are proceeding to the McGill degree of Mus. Doc. and have satisfied the University authorities in all requirements and paid the necessary fees for the same.

# REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the degree of Bachelor of Music, may proceed to the degree of Doctor of Music, the requirement for which is a composition in extended form, such as an oratorio, opera or cantata. This exercise must have as its first number an introductory orchestral movement in the usual concertoverture form, and must contain eight-part writing and fugal treatment. It must be scored for a full orchestra. If preferred, a candidate may present a composition scored for orchestra in the form of a symphony, symphonic poem or tone poem occupying no less than forty minutes in performance. The University may, if it elects to do so, order the candidate to give a public performance of this original and unaided composition, when approved by the Examiners, in some public building connected with the University. In addition, an examination in the higher forms of composition shall be necessary, together with a critical knowledge of the full scores of certain prescribed works.

Full particulars with regard to degrees and diplomas in Music, as well as those relating to local examinations not included in the above, will be found in the special Music Syllabus obtainable on application to the Secretary of the McGill University Conservatorium of Music.

# THE ROYAL VICTORIA COLLEGE.

Founded and Endowed by the late Rt. Hon. Baron Strathcona and Mount Royal.

#### FOUNDATION AND HISTORY.

The College was opened September 4th, 1899.

It is the outgrowth of plans conceived during the early years of his Principalship by the late Sir William Dawson, which resulted in the establishment of the Ladies' Educational Association. Under the auspices of the Association, courses of lectures, delivered chiefly by Professors of McGill University, were offered to women from 1870 until 1884, thus placing within their reach, to some extent at least, the advantages of a Collegiate and University education.

In 1884, during the principalship of the late Sir William Dawson, the late Lord Strathcona, then Mr. Donald A. Smith, gave a sum of \$50,000, and, in 1887, a further sum of \$70,000, to found the Donalda Endowment for the higher education of women, such education to be conducted in the buildings of McGill College, as a distinct course in the Faculty of Arts, with the understanding that as soon as practicable the classes were to be created into a separate college of McGill University, with a building separate from that of McGill College. Under the terms of the Donalda Endowment it was provided that degrees in the Faculty of Arts should be granted to women practically on the same conditions as to men, and that the examinations for such degrees, for classing, honours, prizes and medals should be identical with those for men.

As a result of this generous gift and in accordance with the conditions attached, courses of instruction, identical in subject and in standard with those of the Faculty of Arts, were established for women in 1884. These courses were given in the Arts Building, some of the work of the third and fourth years and of the Honour Courses being conducted in joint classes.

The first graduating class of eight women was presented for the degree of Bachelor of Arts in 1888.

The ultimate object of Lord Strathcona had been the provision of a residential college, and this was realized when the Royal Victoria College was opened in 1899, and formally inaugurated by their Majesties the King and Queen (then Duke and Duchess of York) in 1901.

The College building, surrounded by garden and tennis courts, was erected at a cost of about \$400,000 at the head of Union Avenue, upon land adjacent to the University Campus. Its beautiful and dignified exterior was designed in consistency with a careful and generous internal provision of a comfortable and gracious place of study and dwelling for students and for staff. A Warden and Resident Staff were appointed. With these new and great advantages the instruction provided by the original endowment has been maintained as hitherto, except that the separate classes are held mainly in the College building. Women have continued to prepare for degrees in Arts, including pure science. Through the wisdom of Lord Strathcona, provision was also made for the study of music. Since, however, the establishment of music as a separate department of the University in the Conservatorium of Music, independent instruction in music in the College has ceased, but it still maintains a resident lecturer in this subject, who is also Vice-Director of the Conservatorium. The interest of College students in music is thereby served and provided for. Women students resident in the Royal Victoria College may take degree courses in music at the Conservatorium.

#### THE COLLEGE BUILDING.

The building provides an academic, administrative and recreational centre for resident and non-resident students. It is situated on Sherbrooke Street, in close proximity to the University buildings, and within easy reach of Mount Royal Park. The building is fire-proof, and much thought and artistic care have been given to furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the faculty room, the students' common room, a spacious dining hall, and three lecture rooms. On the first floor are other lecture rooms, the library, reading room, and a handsome assembly hall, which is used for convocation, Conservatorium concerts, and other University purposes. This hall is sometimes lent for purposes that are in harmony with the objects of the College. The gallery, which is reserved exclusively for the use of College students on such occasions, affords the latter many opportunities of educational value. The second and third floors and a small part of the first floor are occupied by the rooms of the Resident Staff and students. Each student has a separate study-bedroom. The rooms are completely furnished, and no article of furniture need be brought by the students.

A large gymnasium is provided, fully-equipped with modern requirements. In connection with the gymnasium are bath-rooms and dressing-rooms.

Resident students of music have the use of pianos in two practising rooms and at certain hours in other parts of the building.

Facilities for lawn tennis and for skating are provided. Subject to regulations, the students have the privilege of using the University grounds.

# ADMISSION AND INSTRUCTION.

The College being a college of McGill University and its students being registered in the Faculty of Arts, they are required to comply with the regulations concerning discipline and instruction, made by the University and Faculty, and, in addition, with such regulations as may be made for the Royal Victoria College.

Undergraduates are required to pass the Matriculation Examination of the University, or an equivalent examination (see pages 48 to 62) and can proceed to the degrees of B.A. and B.Sc. They are required to wear academic dress. Partial students, in order to obtain admission, must pass the matriculation examination in the subject, or subjects, which they wish to take, or, failing this, must be able to satisfy the Head of the Department concerned that they are qualified to proceed with the course.

Students are required to enter on the roll book of the College their names, home addresses, and addresses in Montreal. All students entering the University for the first time are required, according to municipal regulations, to present a certificate or other satisfactory evidence of successful vaccination. No student who has an infectious illness or who comes from a house in which there has been an infectious illness within a month, shall enter or return to the College without giving notice and obtaining the consent of the Warden. The health of the resident students is in charge of two physicians, who may be consulted, free of charge, by arrangement with the Warden. Every student applying for admission to residence is required to fill in an entrance form and to forward a medical certificate on a form provided by the College.

Instruction is given by professors and lecturers of the University and lecturers and tutors of the Royal Victoria College, who are also members of the various teaching departments of the Faculty of Arts. Graduate students can proceed to the degree of M.A., M.Sc. and Ph.D.

Lectures are given in the College or in the University buildings, practical instruction in science being given in the University laboratories. Students are assisted in their studies by the resident staff.

Students of the College have the use of the University Library containing 180,600 volumes. There is also a College Library comprising works of general literature and the chief stated books required for the University curricula, the Department of Modern Languages

being especially well represented. The College Library and Reading Room are open to resident students from 9 a.m. to 11 p.m. and to non-resident students from 9 a.m. to 6 p.m. (on Saturdays from 9 a.m. to 1 p.m.).

The Peter Redpath Museum, containing large collections in mineralogy, palæontology, zoology, botany, archæology, and ethnology, is open to students of the College.

The Warden's business hours are 10 a.m. to 1 p.m.; at other times, by special appointment. She will be glad to meet all students before the opening of the session and to discuss their plan of work then or at any other time during the session.

Applications for admission or for further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

#### EXHIBITIONS AND SCHOLARSHIPS.

For a statement of the exhibitions and scholarships open to women students of the University, see pages 75 to 88.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the ctiy, the Warden and Staff are empowered to make nominations in any of the four college years to not more than three additional exhibitions of the value of \$100.00 each.

#### TUITION FEES.

Students (graduate, undergraduate or partial, resident and non-resident) pay the same fees as are charged in the Faculty of Arts. For undergraduate students the fee is \$100.00 (this includes fees for library, gymnasium and graduation). For further information, see page 96. Every student pays an Athletics or Grounds fee of \$3.00, and undergraduate students, the Royal Victoria College Undergraduates Society fee of \$2.50. All fees are payable to the Bursar, McGill University, on or before October 10th.

#### BOARD AND RESIDENCE.

Residence in the College is open to graduate students, undergraduates, conditioned undergraduates, and, in exceptional circumstances, to partial students. Application for residence should be made early, as accommodation in the College is limited. The charge for board and residence, in addition to the sessional fee for tuition, is \$500.00 (\$200.00 for room, \$300.00 for board). This may be paid in two equal instalments of \$250.00 each, in October and February. Room rent includes all expenses of heat and light (not other electrical attachments, for which fees will be charged). These charges

cover the University session from about September 28th to the day after Convocation.

Students of music or others who remain in College until a later date for purposes of instruction, school practice, or examination, and students returning in September for supplemental of matriculation examinations, are charged an additional fee of \$1.50 a day. No additional fee is charged to students returning earlier than September 28th for scholarship examinations. With the permission of the Warden, students may remain in residence during the Christmas vacation. They will be required to pay a fee of \$1.50 per diem for board and residence.

The charges for tuition and room rent are not subject to remission or reduction under any circumstances. In case of prolonged illness and absence from College for a period of six weeks or more, a proportionate reduction, however, is made in the charge for board.

All fees are payable to the Bursar, McGill University, on or before October 10th. Notice of withdrawal should be given at the close of the session, or not later than September 1st.

#### PHYSICAL EDUCATION.

DIRECTOR OF THE DEPARTMENT:—A. S. LAMB, B.P.E., M.D.
UNIVERSITY MEDICAL OFFICER:—F. W. HARVEY, B.A., M.D.
PHYSICAL DIRECTOR FOR WOMEN:—MISS ETHEL M. CARTWRIGHT,
Chelsea College of Physical Education.
Assistant:—Miss Georgina M. Wood, Chelsea College of
Physical Education.

Every student on entering the College is required to pass a physical examination.

The physical education offered to undergraduate students includes educational, remedial and recreative gymnastics.

The educational gymnastics are based on anatomical and physiological laws; the exercises aim at producing the highest degree of health in each individual, and thus contribute to mental as well as to physical efficiency. The course of exercise, which is progressive throughout each session, encourages the harmonious development of the nervous and muscular system, and provides a remedy for incorrect habits of sitting, standing and walking. A remedial gymnastic course is prescribed for undergraduate students who are physically unfit for ordinary class work.

Work in the Physical Education Department, amounting to 140 hours during the four years' course, is required of all undergraduate

students. The periods are used for instruction in personal hygiene and for educational, remedial and recreative gymnastics, according to the physical requirements of the individual. Attention is given in the senior years to the subject of health problems. No student is asked to do work unsuited to her physique and students debarred from exercise of any kind are dealt with separately and carefully advised.

The Physical Director for Women arranges all regulations regarding necessary attendance and the substituting of recreative for educational gymnastics.

Recreative gymnastics, in the form of basket ball, tennis, ice-hockey, fancy skating and athletic sports, are organized by the Athletic Association, under the supervision of the Department of Physical Education. All students are examined by the Medical Officer and the Physical Director for Women, and are required to pass satisfactory physical tests before taking part in any of these activities.

Students of Music in residence are also required to attend educational gymnastic classes. Educational and recreative gymnastics are open to all partial students on payment of a fee of \$5.00 for a class of two periods a week.

Strathcona Prizes are offered in this Department under the conditions mentioned on page 329.

A course of instruction, theoretical and practical, is offered to undergraduates of the fourth year, who are preparing for the Academy Diploma, attendance being required by the Department of Education as follows (see page 162):—

A course of 45 hours on the principles and practice of physical education. The course will cover elementary anatomy, physiology and hygiene, the theory of gymnastics and class teaching.

In all cases of absence the student is required to report to the Physical Director for Women. The ordinary interpretation of the one-eighth rule concerning absences does not apply in this Department. Every student is required to wear the costume recommended by the Department.

Students who satisfactorily complete this course are entitled to certificate "B" of the Strathcona Trust, and their work is included in the requirements for the High School Diploma of the Province of Quebec.

Provision is made by the Department for the care of the health of women undergraduate students during the University session.

A leaflet giving information concerning instruction and concerning the health scheme will be supplied to all students at the opening of the session.

#### MUSIC.

Students taking courses in music leading to the degree or diploma are eligible for residence in the College.

Instruction in music is offered at the McGill Conservatorium of Music—Director, Dr. H. C. Perrin; Vice-Director, Miss Clara Lichtenstein, Resident Lecturer in the Royal Victoria College. Students may prepare for the degree examination in music of the University, or for the Diploma of Licentiate in Music.

For information regarding courses in music, see page 281, and also the separate syllabus issued by the Conservatorium of Music.

#### COLLEGE SOCIETIES.

The students maintain the following societies:—The Undergraduates' Society, the Athletic Society, the Delta Sigma Literary and Debating Society, La Société Française, the Women Students' Christian Association.

# MACDONALD COLLEGE.

#### FOUNDATION AND PURPOSE.

Macdonald Coilege, which is incorporated with McGill University, was founded, erected, equipped and endowed by the late Sir William C. Macdonald for the following among other purposes:—

- (1) The advancement of education; the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.
- (2) To provide suitable and effective training for teachers, and especially for those whose work will directly affect education in schools in rural districts.

#### SITUATION AND EXTENT.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, P.Q., twenty miles west of Montreal. The main lines of the Grand Trunk and the Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 786 acres, and has been arranged into four main areas, viz.: (1) the campus, with lawn, school garden, and recreation fields for men and women; (2) experimental grounds, with plots for illustration and research in grains, grasses, and other farm crops; (3) the horticultural and poultry departments; and (4) the stock farm.

#### THE GENERAL ORGANIZATION.

The College is divided into three schools:-

- (1) The School of Agriculture, which aims to provide a theoretical and practical training in the several branches of agriculture.
- (2) The School for Teachers, which offers a comprehensive and thoroughly practical training in the art and science of teaching.
- (3) The School of Household Science, in which young women receive training which will make for the improvement and greater enjoyment of home life and instructs them in professional work in household and institute superintendence and management.

## ENTRANCE REQUIREMENTS.

School of Agriculture.

All candidates for admission:-

- I. Must have passed their seventeenth birthday;
- 2. Must produce satisfactory evidence as to moral character, also medical certificate of physical health, including successful vaccination within the six years preceding date of entrance; and
- 3. Must produce evidence of having worked for a season (including seed time and harvest) on a farm, affording a practical knowledge of ordinary farm operations. This knowledge will be tested by a practical examination at entrance or at a subsequent date.

All candidates for the winter course will be required to read and write the English language acceptably and to be proficient in the use of elementary mathematics.

All candidates for admission to the four-year course leading to a degree, are required:—

To produce one of the following certificates:-

- (a) A school leaving certificate of the Province of Quebec.
- (b) Of having passed the junior matriculation examination for entrance to the Faculty of Agriculture, which is held in June and September at McGill University and at the local centres provided. All inquiries relating to such examination should be addressed to the Registrar, McGill University, Montreal, P.Q. Subjects of examination:—(1) English (two papers), (2) History (one paper), (3) Latin or French or German (two papers), French preferred, (4) Elementary mathematics [algebra (one paper), and geometry (one paper)], (5) Any one of the following:—Botany, chemistry, physics, zoology, physiography (one paper).

For requirements in each subject of such examination, see pages — and —.

- (c) A matriculation certificate for entrance to any other faculty of the University.
  - (d) A model school diploma of the Province of Quebec.
- (e) Other certificates of having passed examinations the same or equivalent to those required for the matriculation examinations of McGill University. For a list of such certificates, see page 47.

Those who cannot present any one of the above certificates will be required to pass, at Macdonald College, at the time provided at the opening of the session, the junior matriculation examination set forth in paragraph (b) above. This examination, at Macdonald College, is intended only for those who are without the opportunity of qualifying by any of the methods indicated above. Arrangements for this examination at Macdonald College should be made with the Principal, Macdonald College, P.Q.

Candidates for admission to the Faculty of Agriculture who have failed to complete the matriculation requirements will be allowed to enter the first year as conditioned undergraduates, provided (a) that they have not failed in more than two papers (which cannot both be in the mathematical section, nor in two languages), and (b) that they have obtained at least 25 per cent. in the subjects in which they have failed and 50 per cent. of the aggregate. This regulation applies also to candidates who seek to satisfy the matriculation requirements by means of certificates granted by other recognized examining bodies. This condition must be removed before the student can be admitted to the second year.

# School for Teachers.

Teachers to be trained for the schools under the control of the Protestant Committee of the Council of Public Instruction for the Province of Quebec will be admitted under conditions prescribed by that body, particulars concerning which are given in detail in the Announcement of Macdonald College.

# School of Household Science.

All candidates for admission:-

- (a) To the homemaker course, must have entered their eighteenth year and completed grade X. of the Province of Quebec, or its equivalent.
  - (b) To the institution administration course, must have entered their twenty-third year, completed grade XI. (school leaving) of the Province of Quebec, or its equivalent, and have had some previous experience in housekeeping (e.g., assisting with the housekeeping in their own homes).
  - (c) To the short courses, must have entered their eighteenth year, be able to read and write the English language acceptably and be proficient in the use of elementary mathematics.
- 2. Must produce satisfactory evidence as to moral character; also medical certificate of health, including successful vaccination within the six years preceding date of entrance.

#### LIVING EXPENSES.

The charges for board and lodging are as follows:-	
For each occupant of a double room with single beds,	
per week	\$7.00

The above charges must be paid strictly in advance, and may be for the whole term, or for four weeks at a time.

Caution Money.—Every student must also, at the time of entrance, make a cash deposit of \$5.00 with the Bursar of the College, to cover fines, breakages, etc.; and as soon as any student's deposit is exhausted he or she will be required forthwith to make an additional deposit of the same amount.

#### FEES.

In the School for Teachers, tuition is free to residents of Quebec. In the School of Agriculture, tuition is free to sons, daughters, etc., of farmers of the Province of Quebec in the first two years. For other residents of Canada the fee is \$50.00, and for students outside of Canada \$100.00.

In the School of Household Science, tuition is free for daughters, etc., of farmers of the Province of Quebec in the one and two-year courses; for other residents of Canada the fee is \$100.00 and for students outside of Canada \$125.00 per session.

# PAYMENTS AT ENTRANCE

	Tuition Per Session	Labora- tory Fee	Caution Money Deposit	Tuition Labora- Caution   4 Weeks'   Doctor's Laundry Student   Per tory Money   Board in   Fee   Fee Activities   Session   Fee Deposit   Adv'ce (a)	Doctor's Fee	Laundry Fee	nundry Student Fee Activities	Total	290
School, of Agriculture:— Winter Coarse and First and Second Veers: Sons, daughters, etc., of farmers of the Province of Oucher	Free	\$10.00	00.38	\$28.00	\$3.00		\$8.00 (b) \$ 54.00	\$ 54.00	
anada	\$ 50.00	10.00	5.00	28.00	3.00	: :	8.00 (b) 8.00 (b)	8.00 (b) 104.00 8.00 (b) 154.00	
Sons, daughters, etc., of farmers of the Province of Quebec	50.00 50.00 100.00	15.00 15.00 15.00	5.00 5.00 5.00	28.00 28.00 28.00	3.00 3.00 3.00	: : :	8 CO (b) 8 OO (b) 8 CO (b)	109.00 109.00 159.00	
School, For Teachers:— Model School and Kindergurten Classes Flementary Classes	Free Free	5.00	5.00	28.00	3.00	\$1.00	4.25 (c) (d)	4.25 (c) 46.25 (d) (f)38.50	
School of Household Science:— Homemaker and Institution Administration Courses:						,			
Daughters, etc., of farmers of the Province of Quebec. Other residents of Canada.	Free 100.00	10.00	5.00	28.00	3.00	00.1	4.25	51.25	
Students from outside of Canada Shot Causes (per course): Daughters, etc., of farmers of the Province of Only on	125.00 Free	00.00	5.00	28.00	3.00	9. 6	4.23 (e)	(f)41.00	
Other residents of Canada Students from outside of Canada	35.00	25.00	8.00 8.00 9.00	28.00	2.00	1.00	(e) (e)	(f) 76.00 (f) 91.00	

(a) Occupants of single rooms are charged \$1.00 extra per week. Students in Agriculture from the Province of Quebec receive a grant from the Provincial Government of \$7.00 per month of attendance on account of board. See page 297.

(b) Women students in the School of Agriculture pay the same for student activities as those in the School for Teachers (model class) pay the same for student activities as men students of the School of Agriculture.

(c) Men students of the School for Teachers (model class) pay the same for student activities as men students of the School of Agriculture.

(d) Students of the clementary class pay for student activities—first term, men, \$3.25; women, \$1.50; second term, men, \$4.00; women, \$2.25.

(e) Short course students pay for student activities—autumn and spring courses, 75c; winter course, \$1.50.

#### THE B.S.A. DEGREE.

Students who shall have completed the regular course of study in Agriculture, as laid down in the Announcement of the College, shall have passed the prescribed examinations for graduation, and shall have performed such exercises as may be prescribed to that end—the whole to the satisfaction of the Faculty of Agriculture—shall be entitled to the degree of Bachelor of Science in Agriculture, and the degree, when abbreviated, shall be designated by the letters B.S.A.

Post graduate work may be taken at Macdonald College. The degrees offered are M.S.A., M.Sc., Ph.D. Certain of these courses are set forth in the College announcement; others in the McGill University calendar; but all post graduate work is carried on under the auspices of the Committee on Graduate Studies, McGill University, Montreal.

#### DEGREE IN HOUSEHOLD SCIENCE.

Students who shall have completed the regular course of study of the first two years in the Faculty of Arts, and shall have passed the prescribed examinations during the course, and thereafter shall have completed a special course of study for two years at Macdonald College, shall have passed the prescribed examinations during the said course and also the special examinations for graduation; and shall have performed such exercises as may be appointed to that end, the whole to the satisfaction of the Teaching Staff of Macdonald College, and also of any other examiners whom the Corporation may associate with the said staff, shall be entitled to the Degree of Bachelor of Household Science.

# PROVINCIAL GOVERNMENT GRANTS TO STUDENTS FROM THE PROVINCE OF QUEBEC.

# (1) School of Agriculture.

The Department of Agriculture of the Province of Quebec grants to each student who belongs to the Province of Quebec \$7.00 per month of attendance employed in studying according to the time tables in the School of Agriculture, Macdonald College. This amount will be placed to the credit of such students by the College Bursar and will be applied on account of board and lodging.

# (2) School of Household Science.

The Provincial Government grants bursaries of \$20.00 to \$50.00 each to Quebec students from the farming community in the junior and senior years of the School of Household Science.

#### COLLEGE ANNOUNCEMENT.

Full details as to the courses, etc., will be found in the Announcement of Macdonald College, which will be sent, on application to the Principal, Macdonald College, Que.

# DEPARTMENT OF PHARMACY.

#### GENERAL ANNOUNCEMENT.

The Fifth Session of the Department of Pharmacy will be opened on Monday, October 3rd, 1921.

The Montreal College of Pharmacy, organized as a teaching body in 1867, for fifty years successfully carried on the work of instructing pharmaceutical students, and for many years it was the only institution in the Province of Quebec offering such instruction.

During the summer of 1916, the Montreal College of Pharmacy was taken over by the University and a Department of Pharmacy was instituted in connection with the Faculty of Medicine.

Special instruction on all subjects required by the future Pharmaceutical Chemist is given in the class rooms and laboratories of the University, and students of Pharmacy have ready access to its splendid equipment.

The various lectures and demonstrations are made particularly interesting, full courses on each subject being given.

The work of the Department of Pharmacy embraces courses in botany, physics, chemistry and practical chemistry, theoretical and practical pharmacy, dispensing, materia medica and toxicology.

Examinations in each subject are held at the close of the course. All students must take these examinations, and those who pass in all subjects of the curriculum, as required by the Pharmaceutical Association of the Province of Quebec, will receive the University Diploma of Pharmacy. A minimum of 50 per cent. in each subject is required to pass, and 75 per cent. for honours. The examination requirements of the Pharmaceutical Association of the Province of Quebec for license to practice Pharmacy in the Province are fully described in the special announcement issued by the Department.

#### MATRICULATION.

For entrance into the Department of Pharmacy the University accepts the preliminary examination of the Pharmaceutical Association of the Province of Quebec in default of the B.A. degree or university matriculation. Students may also enter by passing the matriculation examination of the Faculty of Medicine.

Full details of the course in Pharmacy are given in the special announcement of the Department, copies of which will be sent on application.

#### DEPARTMENT OF SOCIAL SERVICE.

# Committee of Management.

SIR ARTHUR CURRIE, Principal, Chairman.
F. D. Adams, Ph.D.
W. M. Birks.
WM. Caldwell, D.Sc.
J. Howard T. Falk.
D. J. Fraser, D.D.
OSWALD HOWARD, D.D.
HELEN R. Y. REID, B.A.

#### Offices.

East Wing, Arts Building, McGill University. Telephone, Up. 5920.

# Administrative and Teaching Staff.

Director:—J. Howard T. Falk. Secretary:—Miss Violette C. Lafleur.

#### Lecturers.

WM. CALDWELL, Ph.D., Professor Moral Philosophy, McGill University.

MR. JOHN B. DAWSON, Gen. Secretary, Charity Organization Society.

PROFESSOR CARRIE M. DERICK, Professor of Morphological Botany,

McGill University.

REV. GORDON DICKIE, B.D., Secretary, Quebec Social Service Council.

Mr. J. Howard T. Falk, Director, Dept. of Social Service, McGill
University.

Mr. Francis Hankin, Hon. Secretary, Canadian National Reconstruction Groups.

STEPHEN B. LEACOCK, Ph.D., Professor Economics, McGill University.

GORDON S. MUNDIE, M.D., Asst. Director, National Mental Hygiene

Committee.

Miss H. R. Y. Reib, Dominion Council of Public Health.

W. A. L. Styles, M.D., Executive Secretary, Baby Welfare Committee. W. D. Tait, Ph.D., Professor of Psychology, McGill University.

ARTHUR WILLEY, M.A., D.Sc., Strathcona Professor of Zoology, McGill University.

# Calendar, 1921-22.

Sept. 26th,	Monday Registration begins 9.00 a.m.
Oct. 1st,	Saturday Registration closes at 12.00 noon for Diploma students.
Oct. 3rd,	Monday First Term begins at 9.00 a.m.
Oct. 21st,	Friday University Sports Day-Holiday.
	Thanksgiving Day—Holiday.
Dec. 21st,	Wednesday Christmas Holidays begin.
Jan. 4th,	WednesdayLectures resumed.
	Friday 1st Term Lectures end.
	Tuesday Mid-year examinations.
Jan. 23rd,	Monday
	WednesdayAsh Wednesday-Holiday.
	FridayGood Friday—Holiday.
	Monday Intensive Field Work commences.
	Thursday Field Work ends.
	Thursday Closing Exercises.

#### GENERAL INFORMATION.

#### Admission.

Qualifications.—The work of the Department should be considered in the light of post-graduate work. The most desirable student for such work is a college graduate, or person of equivalent education who has had from three to five years' experience in some other field of work, such as teaching or business. Graduate nurses with general education equivalent to matriculation standard should take the course successfully. Persons under twenty-one years and over thirty-five years of age will only be admitted for exceptional reasons.

Training may make a Social Worker efficient, but in social work, as in much other work, it is the human qualifications which distinguish the effective from the ineffective. The success of the Social Worker is largely dependent upon personality; therefore, tact, patience, sympathy, poise, cheerfulness and that something which we may term "religion," and which "calls" a person into social work, may be considered the prerequisites of an embryo social worker.

Diploma Course.—Students entering for the Diploma Course will be required to attend for two years. No student will be admitted without a University Matriculation Certificate or its equivalent.

Certificate Course.—Students taking the Certificate Course will be required to attend for nine months. Students will be admitted without a Matriculation Certificate if they are able to show evidence

of academic standing sufficient to enable them to take the course with profit to themselves.

Applications.—Candidates for admission are required to file application on a form supplied by the Department. Applications should be made as soon as possible to the Secretary of the Department.

# Requirements for a Diploma or Certificate.

The courses taken by a student will be arranged for each student individually, according to previous training and experience, and according to the student's inclinations.

The diploma or certificate of the Department is awarded to students who obtain an average standing of 50 per cent and not less than 40 per cent in any one written examination. Students must also receive satisfactory reports from the social agencies in which their field work has been taken.

Students holding degrees from any recognized University will be given credit for courses which may have been covered by the student in taking a degree, but the Department may require such students to write an examination on such subjects.

# Field Work.

Too much emphasis cannot be given to the importance of field work as part of the training of a social worker. The field work during the first term will be taken with the Charity Organization Society. In the second term the student will be permitted to choose from one of several fields which will include work with Hospital Social Service Departments, Children's Agencies, the Women's Directory, which works with unmarried mothers, and the Social Settlements.

# Time Required.

Students cannot expect to do the work of the Department satisfactorily unless able to give their full time.

Diploma and certificate students will be required to give not less than 12 hours lecture periods per week, in addition to prescribed laboratory and field work.

# Library and Reading Room.

Students will have the privilege of using the Redpath Library, on making the customary deposit of \$5.00; a small reference library is maintained for the use of the students in the Reading Room of the Department, which is contiguous to the Department's offices in the Arts Building.

# Fees and Other Expenses.

- I. The annual fee for diploma or certificate students is \$70.00; if paid in two instalments, in October and January, \$72.00.
- 2. For partial students the fee is \$7.50 for a one-hour course, \$10.00 for a two-hour course; and \$5.00 for a half or term course.
  - 3. The fee for the Extension Course is \$5.00.
  - 4. Books and other school expenses should not exceed \$25.00.

# Board and Lodging.

Accommodation for a limited number of out-of-town women students can be arranged at the University Settlement, fifteen minutes' walk from the University. Rates, \$10.00 to \$15.00 per month for room alone; \$35.00 to \$40.00 per month for room and board. Residents are required to give one or two evenings a week to helping in the work of the Settlement.

#### Bursaries.

A small loan fund is at the disposal of the Committee, from which assistance can be given to a student who would otherwise be unable to take the work of the Department. This sum represents the balance of an anonymous gift of \$1,000 for this purpose.

Loans will be repayable on easy terms.

Applications for assistance from this fund should be made not later than September 1st.

# Opportunities for Employment.

Students qualifying for the Diploma of the Department, who have had no previous experience in social work, may expect to secure positions at a salary of not less than \$900 per annum.

Maturer students with previous experience as teachers or in business may expect to secure from \$1,200 to \$1,800 at once.

Diploma students may expect to find positions in one or other of the following fields:—Case Work with "Family Care"; Agencies, such as a Charity Organization Society or Associated Charities; with "Child Placing" or "Child Welfare," or Children's Protective Agencies; also with agencies caring for the Unmarried Mother; as Probation Officers with Juvenile Courts; as Hospital Social Workers; as Social Settlement Workers; as Recreation Centre or Playground Supervisors; and as Y.W.C.A. Secretaries.

DESCRIPTION OF COURSES.
<ul> <li>I. Elementary Zoology.</li> <li>Two Hours, First Term</li></ul>
2. Elements of Botany.  Two Hours, Second Term
3. Variation, Heredity and Environment.
Two Hours
4. Elementary Psychology.  Two Hours
5. Social Psychology.  Two Hours
6. Elements of Political Economy.
Two Hours
7. The Principles of Sociology.
One Hour
8. Industrial History.
Two Hours

History of the Guild; the domestic system of manufacture; the factory system; the industrial revolution, and the rise of the Trade Union in England and North America; various industrial theories explained; co-operation and joint industrial councils, organization, wages, hours, education, the trust, etc. Bibliography for reference: "The Town Laborer," J. L. and Barbara Hammond; "History of Trade

Unionism," Sidney Webb; "Co-operation at Home and Abroad," C. R. Fay; "Co-partnership and Profit Sharing," Aneurin Williams; "The Whitley Report"; "Man to Man," J. L. Leitch; "Self-Government in Industry," G. D. H. Cole.

# 9. The Treatment of Poverty.

Social Case Work.—Value of evidence; planning rehabilitation; the use of volunteers; co-ordination of effort; case conferences.

How to Help Various Types.—Widows, deserted women, the aged, etc., etc.

Community Effort.—Social insurance, legislation; conditions in industry.

Text-books:—"Social Diagnosis," Mary E. Richmond, Russell Sage Foundation; "American Charities," Warner, 1919 Edition, Crowell & Co.

# 10. Public Health and Housing.

References:—"Elements of Hygiene and Public Health," Porter; "Home and Community Hygiene," Broadhurst; "A Layman's Handbook of Medicine," Cabot; "Housing and the Housing Problem," Aronovici.

#### 11. Child Welfare.

Two Hours......Mr. Falk.

Influences necessary to the normal development of the child in its home, at school, at play, and at work; the treatment of dependent, neglected, delinquent and defective children; the child of the unmarried mother; child-welfare legislation.

Text-books:—"Child Placing in Families," Slingerland, Russell Sage; "How Two Hundred Children Live and Learn," Reeder, Noble; "Juvenile Courts and Probation," Baldwin & Flexner, Century Co.; "Delinquent Child and the Home," Breckenridge & Abbott, Russell Sage.

### 12. Home Economics.

One Hour, Second Term.....Lecturer not appointed. Household management, the dietetic and caloric value of food; economy in buying; economical menus.

## 13. Neuro-Psychiatry.

In connection with the course, students will have the opportunity to witness clinical examinations and tests at the Psychiatric Clinic, Royal Victoria Hospital.

### 14. Rural Sociology.

The class will engage in preparing surveys adapted to the needs of different rural sections.

# 15. Organization and Administration of Social Agencies.

### 16. Social Research and Statistics.

#### 17. Discussion Class.

# 18. The Psychology of Play and Playground Supervision.

Students intending to enter the Social Settlement field will be required to take this course, which is given in the School of Physical Education.

### EXTENSION LECTURES.

### Social Problems, Methods and Agencies.

An Extension Course of twenty to thirty evening lectures will be arranged by the lecturing staff.

# SCHOOL FOR GRADUATE NURSES.

### PRINCIPAL.

SIR ARTHUR WILLIAM CURRIE, K.C.B., G.C.M.G., LL.D., Vice-Chancellor.

# UNIVERSITY REGISTRAR.

J. A. NICHOLSON, M.A., LL.D.; Office, East Wing, McGill College.

# SECRETARY AND BURSAR.

A. P. S. Glassco, B.Sc.; Office, East Wing, McGill College.

# ADVISORY COMMITTEE.

MISS HELEN R. Y. Reid, Chairman.

MRS. R. W. Reford.
MRS. W. R. MILLER.
MISS MARY SAMUEL, R.N.

MISS DE LANY, R.N., V.O.N.
MISS DE LANY, R.N., V.O.N.
MISS HERSEY, R.N.
ARTHUR S. LAMB, M.D.
A. T. BAZIN, D.S.O., M.D.
F. G. FINLEY, C.B., M.D.

### DIRECTOR.

Miss Young.

MISS FLORA MADELINE SHAW, R.N.

#### TEACHING STAFF.

MAUDE E. ABBOTT, B.A., M.D. (Bishop's), M.D. Hon. (Mc-Gill), L.R.G.P. & S. (Edin.), Lecturer in Pathology and Curator of the Pathological Museum.

Lecturer in History of Nursing and Pathology.

E. M. Best, M.H., Ph.D., Instructor in Education, Theological Colleges.

Lecturer in Principles of Teaching.

WILLIAM CALDWELL, D.Sc. (Edin.), Macdonald Professor of Moral Philosophy.

Lecturer in Sociology (Dept. S.S.).

M. WINNONA CRUISE, B.A., Toronto; M.Sc. (Teacher's College, Columbia). Department Household Science, Macdonald College.

Instructor in Nutrition.

J Howard T. Falk, Director of Dept. of Social Service.

Lecturer in Child Welfare (Dept. S.S.).

Francis Hankin, Secretary Canadian National Reconstruction Group.

Lecturer in Industrial History (Dept. S.S.).

- F. W. Harvey, B.A., M.D., University Medical Officer. Lecturer in Physical Diagnosis (Dept. Ph. Ed.).
- J. W. Scane, M.D., Assistant Professor of Pharmacology.

  Lecturer in Materia Medica.
- Mary Samuel, R.N. (late Supt. Training School, Roosevelt Hospital, N.Y., and Lakeside Hospital, Cleveland).

  Instructor in Training School Supervision and Administration.
- FLORA MADELINE SHAW, R.N., Diploma Teachers' College, Columbia University.

  Instructor in Teaching in Schools of Nursing.
- J. C. Simpson, B.Sc., Associate Professor of Histology and Embryology.

  Lecturer in Anatomy and Physiology (Dept. Ph. Ed.).
- T. A. STARKEY, M.B., D.P.H., M.D.C.M., M.R.C.S., L.R.C.P., Fell. Royal San. Inst., Strathcona Professor of Hygiene. Lecturer in Preventive Medicine (Dept. Ph. Ed.).
- WILLIAM D. TAIT, B.A. (Dal.), M.A. and Ph. D., Assistant Professor of Psychology.

  Lecturer in Psychology (Dept. S.S.).
- R. St. MacDonald, B.A., M.D., D.P.H., Lecturer in Hygiene. Instructor in Bacteriology.
- A. R. M. McLean, B.Sc., Ph. D., Lecturer in Chemistry. Lecturer in Chemistry.
- GORDON S. MUNDIE, M.D., Assistant Director National Mental Hygiene Committee.

  Lecturer in Neuro Psychiatry (Dept. S.S.).
- A. K. Haywood, M.D., Supt. of Montreal General Hospital. Instructor in Hospital Administration.
- To be appointed:

  Instructor in Public Health Nursing.

#### GENERAL STATEMENT.

The School for Graduate Nurses was opened in October, 1920, with a twofold object: (1) To provide training for Public Health Nursing; (2) To provide training for administrative and teaching positions in Hospitals and Schools of Nursing.

Two courses, A and B, were therefore arranged, each covering a full academic year and leading to a certificate.

Seven full-time students were registered in Course A and nine in Course B. In addition 18 partial students were registered for one or more courses.

Public Health Nursing is developing all over Canada; five courses have already been established to prepare graduate nurses to meet the increasing demand. These are being given at the following Universities: Dalhousie, Western, British Columbia, Toronto and McGill. The field of Public Health Nursing is ever widening, the interest of such work is beyond question, and the need of qualified workers is very great. In addition to Visiting Nursing, which is the oldest branch of this work, there are School Nursing, Infant Welfare Work, Industrial Nursing and Social and Mental Hygiene Work and many other activities, all concerned with the prevention of disease and the promotion of better standards of health. The opportunities offered are indeed world-wide.

Teaching in Schools of Nursing: The need of qualified instructors for Schools of Nursing is being very generally realized as the necessity for improved educational methods in the training of nurses becomes increasingly apparent; the demand for such instructors is, however, greatly in excess

of the supply.

The institutional Course B given this year was designed to prepare graduate nurses, of proper qualifications, for teaching, or supervision and administration, or all combined. It is felt that such a course must necessarily be a very crowded one, so in the coming year two separate courses, in preparation for institutional work, will be offered. One (Course B), Teaching in Schools of Nursing. The other (Course C), Administration in Schools of Nursing.

#### PROGRAMME OF STUDY.

A. Public Health Nursing.

Required:—

Elementary Psychology.
Social Psychology.
Principles of Public Health Nursing.
Preventive Medicine.
Bacteriology.
Special Fields of Public Health Nursing.
Physical Diagnosis.
History of Nursing.
Field Work with V.O.N., C.O.S., etc.

Electives:—Sociology, Home Economics, Chemistry, Industrial History, Neuro-Psychiatry, Child Welfare, Principles of Modern Social Work, Nutrition.

### B. TEACHING IN SCHOOLS OF NURSING.

Elementary Psychology.
Educational Psychology.
Principles of Teaching.
History of Education.
Teaching in Schools of Nursing.
Supervision in Schools of Nursing.
History of Nursing.
Anatomy and Physiology.
Preventive Medicine and Bacteriology.

Electives:—Materia Medica, Nutrition, Physics, Neuro-psychiatry, Abnormal Psychology, Sociology, Chemistry.

# C. Administration in Schools of Nursing.

# Required:—

Elementary Psychology.
Principles of Teaching.
History of Nursing.
Supervision in Schools of Nursing.
Administration in Schools of Nursing.
Current Problems in the Education of Nurses.
Hospital Administration.
Preventive Medicine and Bacteriology.
Nutrition.

Electives:—Sociology, Home Economics, Abnormal Psychology.

Students completing the requirements of both courses B and C are entitled to a certificate in Teaching and Administration in Schools of Nursing—or courses B and C with electives can be taken as a two-year course leading to a diploma in Teaching and Administration in Schools of Nursing.

Certain of the above lecture courses are given especially for the students of the School for Graduate Nurses; others form part of the programmes of the Department of Physical Education and the Department of Social Service and are taken together with the students of these departments.

### ADMISSION REQUIREMENTS AND REGULATIONS.

Nurses desiring to enter for any course given in the School for Graduate Nurses must present:—(a) Evidence of a complete high school education or of an equivalent which is adequate to the requirements of the University; (b) Evidence of the satisfactory completion of a course in a

Nurses' Training School of approved standards connected with a hospital of at least fifty beds and covering a complete general training of at least two years. Nurses must be registered when coming from State or Province where registration is in force, and must be eligible for membership in the Canadian National Association for Trained Nurses.

In addition to the above, any nurse wishing to take the course in Hospital and Training School Administration must present definite evidence that, after graduation, she has held satisfactorily for a reasonable period of time some position which has demonstrated her fitness for responsible executive work of this kind. Students must be in good physical condition, as the work demands continued and concentrated effort.

Oualified nurses may register for one or more courses in

any term on the same basis as regular students.

Partial Students:—Applications should be made during the spring and early summer, if possible. For application blanks and further information, write to the Director, School for Graduate Nurses, McGill University.

### FEES AND DEPOSITS.

The fee for any certificate course is \$100.00 a year, to be paid by October 10th, or payable in two instalments of \$51.00 each, to be paid by October 10th and February 1st.

For Partial Students the fees are as follows:-

For a full course of one lecture a week during the	
College year	\$ 7.50
For a half-term course	
For a course of two lectures weekly	10.00

Special fees for courses which include Laboratory work. Students, as in all departments of the University, pay, in addition, \$3.00 athletic fee.

A deposit of \$5.00 caution money is required from all

regular students.

#### LIBRARY.

Regular students will have the privilege of using the Libraries of the University.

#### SCHOLARSHIPS.

Scholarships are being offered for 1921-22 by the Canadian Association of Nursing Education and by the Association of Registered Nurses of the Province of Quebec, and a number of hospitals are providing annual scholarships for

their own graduates. Among these are the Royal Victoria Hospital, Montreal General Hospital, Hamilton General Hospital, Hospital for Sick Children, Toronto.

#### REGISTRATION.

Registration begins September 21st, and the opening lecture will take place Monday, October 3rd. Nurses will consult the Director at time of registration.

### EXAMINATIONS.

Examinations are held in some subjects at the end of the first term, and final examinations are held in April and May. The School for Graduate Nurses closes the end of May.

### RESIDENCE.

A limited number of students may be accommodated at the Hostel of the Department of Physical Education. Hostel students have their meals at the Royal Victoria College, which is just across the road. Addresses of boarding houses may be had from the Director.

#### EXPENSES.

A statement of average expenses for the academic year is as follows:—

University fees	\$103.00
Books	20.00 to \$ 40.00
Room (30-32 weeks)	175.00 " 225.00
Board	
Incidentals	
Average total	\$550.00 to \$700.00

### REQUIREMENTS FOR CERTIFICATES OR DIPLOMAS.

A certificate course requires fourteen hours weekly or the equivalent. (Two hours laboratory or four hours field work equals one hour lecture.)

Certificates are awarded to students who obtain an average mark of 50 in all examinations and not less than 40 in any one written examination.

Students doing field work must also receive satisfactory reports from the agencies with which their field work has been taken.

The diploma of the department is awarded to students on the satisfactory completion of a two-year course in teaching and administration. (See Courses B and C.)

### VACCINATION.

All students entering the University for the first time are required to present a certificate, or other satisfactory evidence of successful vaccination, failing which, they shall at once be vaccinated in a manner satisfactory to the authorities.

# COURSES GIVEN IN THE SCHOOL FOR GRADUATE NURSES.

# 1. Supervision in Hospitals and Training Schools.

One hour...........Miss Shaw and Miss Samuel. Lectures and conferences:—Course designed for teachers and supervisors who require a general knowledge of organization and administration in hospitals and training schools. It deals with the relation of departments to each other, and with the ordinary problems of management and supervision; with the arrangement of practical training of student nurses, and the preparation of ward records and reports.

# 2. Principles of Hospital Administration.

# 3. Administration in Schools of Nursing.

other hospital departments; the appointment and direction of assistants and ward staff.

# 4. Teaching in Schools of Nursing.

One hour......Miss Shaw.

Lectures and conferences:—This course deals primarily with the curriculum of the nursing school, outlining the aims to be achieved through the course of study, the selection and arrangement of subjects in the curriculum, the general content of each, the special methods of teaching suitable in the various subjects, the selection and use of text and reference books, and other teaching materials.

### 5. Current Problems in the Education of Nurses.

One hour, 2nd term......Miss Shaw.

Lectures, readings, and reports:—This course deals with special problems in education peculiar to training schools for nurses. The question of entrance requirements, hours of practical work, health and social aspects of student life are considered.

# 6. Principles of Public Health Nursing.

Four hours. Instructor (to be appointed) and Miss Shaw.

(a) Lectures-Recitations. (b) Excursions, Conferences and Field Work:—Intended to give a general grasp of the nursing problems to be met with in private families; the measures to be followed to relieve immediate needs; and to teach hygiene, preventive methods, and the handling in the home of acute, chronic, or communicable disease. The organization and supervision of the various types of public health nursing are also considered.

# 7. Special Fields in Public Health Nursing.

One hour..........Miss Shaw and Special Lecturers.

This course is devoted to the problems of tuberculosis work, school nursing, pre-natal maternity, and other special types of public health work.

# 8. Materia Medica.

Lectures and demonstrations:—This course includes a discussion of drugs, their sources, crude forms, and preparation, with laboratory demonstrations; proper methods of

administration, with physiological, therapeutic, and toxic action; their dosage, cost, and care; practical problems in weights and measures, and in the preparation of solutions.

# 9. Anatomy and Physiology.

# 10. Bacteriology.

One hour...........Dr. Macdonald and Dr. Jones.

Classes and laboratory work:—Use of microscope, moulds, yeasts, bacteria, media, bacteria and diseases, bacteriology of milk and water; defences of the body against pathagenic bacteria; applications of bacteriology.

# 11. Nutrition and Cookery.

Two hours...... Miss Cruise.

Lectures, recitations, and laboratory work—elements of nutrition and dietetics:—This course describes very simply the essentials of an adequate diet, and the nutritive properties of common food materials. The application of such knowledge to the feeding of individuals and family groups is discussed, with special reference to limitations of cost. Estimations of food values and preparation and service of practical dietaries constitute the laboratory work.

# COURSES TAKEN IN THE DEPARTMENT OF SOCIAL SERVICE.

# 1. The Principles of Sociology.

One hour......Dr. Wm. Caldwell.

The sociological idea and the different attempts at the creation of a sociology; the history and theory of social organization. *Text-book*:—Arthur Fairbanks' "Introduction to Sociology" (Scribners).

# 8. Child Welfare.

One hour.....Mr. Falk.

Influences necessary to the normal development of the child in its home, at school, at play, and at work; the treatment of dependent, neglected, delinquent and defective chil-

dren; the child of the unmarried mother; child-welfare legislation.

# 7. The Treatment of Poverty.

Two hours......Mr. J. B. Dawson.

Poverty and Social Life:—Historical review; the family, a normal standard of life; factors in the breakdown of family life, individual and social; machinery for dealing with poverty, public and private; the scientific basis for social work.

Social Case Work:—Value of evidence; planning rehabilitation; the use of volunteers; co-ordination of effort; case

conferences.

How to Help Various Types: - Widows, deserted women,

the aged, etc., etc.

Community Effort:—Social insurance, legislation; conditions in industry.

# Industrial History.

Two hours......Mr. Francis Hankin.

History of the guild; the domestic system of manufacture; the factory system; the industrial revolution, and the rise of the trade union in England and North America; various industrial theories explained; co-operation and joint industrial councils, organization, wages, hours, education, the trust, etc.

# 12. Home Economics.

One hour, second term.....Lecturer not appointed. Household management, the dietetic and caloric value of food; economy in buying; economical menus.

# Neuro-Psychiatry.

One hour......Dr. Mundie.

Definitions of fallacious sense perceptions, such as hallucinations, illusions, delusions; different types of mental diseases, symptoms, causes and treatment of; mental deficiency; epilepsy; differential diagnosis of organic and functional nervous diseases; juvenile delinquency; the psychopathic personality; relation of psychiatry to industry; relation of social work to psychiatry; history and case record making.

In connection with the course, students will have the opportunity to witness clinical examinations and tests at the

Psychiatric Clinic, Royal Victoria Hospital.

# COURSES TAKEN IN THE DEPARTMENT OF PHYSICAL EDUCATION.

# Chemistry.

Lectures and demonstrations...........Dr. MacLean.

Matter, physical and chemical changes; elements, compounds, mixtures, phenomena of combustion; oxygen, hydrogen; water and laws of combination; atomic theory; chemical equations and calculations; gas laws; molecular weights; nitrogen and compounds; atmosphere—composition, pressure; diffusions; solutions; neutralization; acids; bases; salts; valence; sulphur and its compounds; carbon and its compounds; arsenic; antimony; metals and non-metals; the chemistry of compounds met with in ordinary daily routine. In addition, a series of lectures will be given on organic and physical chemistry.

# Preventive Medicine.

Two hours......Dr. Starkey.

The study of Preventive Medicine is taken up under the following heads:—

# (a) Bacteriology and Serology.

Lectures and demonstrations are given in the study of the more common pathogenic organisms and communicable diseases. Their relation to health is considered in air, water, food, clothing, skin, hair, mouth, etc. Precautions against and means of combatting pathogenic organisms are studied in, e.g., sterilization, disinfection, pasteurization, vaccination, immunization and general prophylaxis.

# (b) Personal Hygiene.

A consideration of the functions of the body, its environment, the responsibility of the individual and the means by which health is maintained; the care of the body, sleep, bathing, food, clothing, etc. Problems in sex hygiene of children, adolescents and social hygiene are discussed.

# (c) Public and School Hygiene.

Health organizations and the means for the maintenance of health; occupational diseases and the effect of various occupations on health; sanitation, light, heating, ventilation, water supply and drainage, school-room inspection, etc.

# General Anatomy and Physiology.

3 hours lectures and demonstrations....Prof. Simpson.

The purpose of this course is to give the student a clear conception of the human body as a *living mechanism*, in which the function and structure are inseparably related, and in which the activities of all parts are intimately co-ordinated. As far as possible, therefore, the anatomy and physiology of the various organs and systems are considered together.

After an introductory study of the structure of the body as a whole, the great vital phenomena which distinguish all living organisms are considered and a detailed analysis made

of the way in which they are exemplified in man.

In this way the various processes which go to make up the life cycle are taken up; the processes of ingestion, digestion, absorption, assimilation, catabolism, respiration, excretion, irritability and conductivity, movement and reproduction, —and the structure of the organs concerned in these functions.

# Physical Diagnosis.

Half-hour..... Dr. Harvey.

Lectures and practical demonstrations in the methods of examination for defects of posture and development, especially of the spine and thorax; description of the deformities due to disease; examination by inspection, palpation, percussion, auscultation by use of the stethoscope to determine the condition of the heart and lungs; tests for sight, hearing, nasal obstruction; examination for dental defects, enlarged tonsils and adenoids.

Actual demonstrations will be conducted to enable the students to recognize early contagious infections, the more common defects, and when to seek expert advice. Practice in methods of examination will be carried on under supervision.

# COURSES IN PSYCHOLOGY AND EDUCATION.

# History of Education.

One hour.....(Lecturer to be appointed.)

The purpose of the course is to present the essential features of the educational thought of the past as this has been shaped by economic, social, political, and religious causes.

# Principles of Teaching.

One hour..... Dr. Best.

The aims of education for the individual, society, nursing schools; when and how do pupils really learn?; education as habit formation; the training of memory; how can we test the progress of learning?; how do pupils get hold of new ideas?; how can we get our pupils to pay attention?; how can we get vivid impressions on our pupils' minds?; the fine art of questioning; how to make a lesson plan; types of teaching; what part can other pupils play in teaching?

### COURSES GIVEN IN THE FACULTY OF ARTS.

1. Elementary Psychology.

12. Social Psychology.

16. Abnormal Psychology.

17. Educational Psychology.

### EXTENSION DEPARTMENT.

The Extension Classes are open to the public, no examination test being required. At the conclusion of each session written examinations will be held, and special certificates will be awarded to successful students.

Civil Service students and those preparing for the examinations held in connection with the Chartered Institute of Secretaries, London, England, and with the Association of Accountants, Montreal, will find some of these classes especially useful. The programme of classes, as organized for 1921-22, is as follows:—

### Spanish.

A course of 50 lectures, intended for beginners.

With the aid of a suitable grammar and text-books, the student will be first taught to read in Spanish and to translate, with a view to his acquiring a correct pronunciation and a vocabulary. When the latter is deemed sufficient for the purpose, conversational practice will be introduced on current topics or on the subject-matter of the text-books.

It is hardly necessary to dwell on the advantages a knowledge of Spanish would possess for those who may be called upon to enter into business relations with Spanish America.

This course will be useful to students desirous of taking Spanish as one of their matriculation subjects.

The books used will be those named in the "Beginners' Spanish Class" of the School of Commerce. (See page 175.)

Mondays and Wednesdays, at 8.15 p.m. Fee for the course, \$10.

#### Commercial Law.

A course of 25 lectures on the general principles of commercial law, specially designed to render service to the business man, banker, and accountant in their everyday transactions, and to help students who may be preparing for any of the examinations held in connection with the Association of Accountants in the Province of Quebec.

The subject is taken up from a practical point of view, with illustrations from actual cases, and the lectures deal with the questions that are likely to arise in the ordinary course of business.

The matter treated is as follows:—Persons and their capacity to contract—minors, married women, and other persons whose capacity is limited; the different kinds of property; the general principles of contracts; payment, and other methods in which debts are extinguished; the sale of goods; the lease and hire of property; the lease and hire of services; building contracts; carriers by land and water; agency; hypothec; pledge; contracts of guarantee; bills of exchange and other negotiable instruments; partnership; corporations; banking; rights of creditors over a debtor's property; privileges; insolvency law.

Each lecture lasts an hour and a half, and is complete in itself. The course is open to both men and women.

Tuesdays, at 7.45 p.m.

Fee for the course, \$10. Mr. Dale Harris.

### Higher Accountancy and Auditing.

This course, consisting of 75 one-hour periods, or their equivalent, is especially intended for Commerce graduates proceeding to the diploma of C.A. It is also open to outside students from the various accountants' offices.

The following is the programme of work to be covered:-

#### ACCOUNTANCY.

- (a) Partnership. The formation, continuance, and dissolution of partnership and problems connected therewith, including joint adventures.
- (b) Companies. The formation, reconstruction, amalgamation and liquidation of companies, and the various problems affecting corporation finance.
- (c) Branches, Consolidations, Mergers, Accounts of Head Office and of Branches.
- (d) The Accounts of Trustees and Executors, including apportionment between capital and revenue, legacies, advances to beneficiaries and other special points.
- (e) Bankruptcy and Insolvency Accounts, with special reference to the Bankruptcy Act of 1920.
- (f) Cost Accounting.
- (g) Income Tax and the Like.
- (h) Other Companies whose accounts require special treatment, such as Land Companies.

#### AUDITING.

(a) Principles of Auditing. Statutory and non-statutory audits, objects of an audit, considerations on the commencement of an audit.

- (b) Audit of Cash Transactions. Internal checks, vouching payments and receipts and various considerations arising therefrom, missing vouchers, verification of cash in hand and at bank.
- (c) Audit of Trading Transactions. Internal checks, the vouching of purchases and sales, allowances and returns, and the examination of the accounts receivable and accounts payable ledgers.
- (d) Audit of the General Ledger. Deferred charges, accrued assets and charges, valuation of assets, depreciation, reserves, etc.
- (e) The Verification of Various Classes of Assets.
- (f) The Audit of a Limited Company. Powers, share capital, bonds, directors, divisible profits, form of accounts and the powers and duties of auditors.
- (g) Special Points in Different Classes of Audits. Insurance and Trust Companies, Banks, etc.
- (h) Investigations.

Fee for course, \$25.00.

Lecturer:-H. D. Clapperton, C.A.

### Political Economy.

A course of 25 lectures, especially intended to meet the needs of candidates studying for the final examination of the Association of Chartered Accountants, candidates for the Civil Service Examination, Division B, junior clerks in banks, and other persons interested in the subject from a practical standpoint.

The following subdivision will indicate broadly the subjectmatter dealt with in these lectures:—

Wealth and its productions; the theory of value; the theory of monopoly price; money; index numbers and the rise in the cost of living; international trade and the foreign exchanges; free trade and protection; distribution—rent, wages, interest, profits and the theory of population; taxation and public finance; social legislation and socialism; the economic aspect of the war.

Thursdays, at 7.30 p.m.

Fee for the course, \$7.50. Mr. B. K. Sandwell.

# English Composition and Business Correspondence.

A course of 25 double lectures on the general principles of English Composition, with especial reference to commercial correspondence and other kinds of writing that are likely to be serviceable in business life. Such topics as mastery of English idioms, the increasing of one's vocabulary, sentence-structure, clearness and force will be discussed. There will be frequent opportunities for practice in writing.

Students in Accountancy offices and those intending to take up secretarial work should derive great benefit from this course.

Friday evenings, from 7.30 to 9.30.

Fee for the course, \$10.

Associate Professor Latham.

### English Literature.

Particulars as to scope of lectures, number, days, hours, fees, etc., will be announced before the opening of the session.

Lecturer: - Dr. Macmillan.

#### French Literature.

A course of 20 lectures on modern French drama, from 1850 to the present time. This course of lectures will be given in French. Thursdays, at 5 p.m.

Fee for the course, \$5.00.

Professor du Roure.

### Metallography.

An evening course of 15 lectures and laboratory periods for practising metallurgists and others who are interested in metals or alloys and who are unable to attend in the day time.

No previous acquaintance with the subject is required. The course includes practical instruction in the microscopic examination of iron, steel and other metals and alloys, and also in the heat-treatment of steel. It is given under the Metallurgical Department.

Monday evenings, from 8 to 10.30. Fee for the course, \$20.00. Messrs. H. J. Roast and C. F. Pascoe.

An advanced course of instruction will probably be arranged for those who have already taken the above course.

# The Graphic Arts.

A course of 10 lectures will be given under this heading, which will cover:—

- (1) The History and Development of Printing and its application to present-day educational, social and commercial activities.
- (2) The Business of Journalism and Publishing.
- (3) The Origin and Development of Advertising.

The course will be largely descriptive, but it will also aim to trace the history of the art of printing, with special reference to the influence it has had on modern ways of living and thinking. Due attention will be paid to the artistic and educational side of the subject, particularly in connection with the part printing has played in preserving and placing before the world at large the literature, art and learning of all ages.

The lectures will be accompanied by exhibits, illustrating many of the points dealt with in the various parts of the course.

Mondays and Wednesdays at 8 p.m., commencing Wednesday, November 2nd, 1921.

Fee for the course, \$5.00.

Mr. W. J. Healy, B.A.

### Philosophy.

Six lectures on "The Revolt Against Reason in Recent Philosophy" (Nietzsche, Bergson, and the Pragmatists).

Professor Hickson.

# Psychology.

A course of fifteen lectures on "The Psychology of Some Human Problems," including war, choosing a vocation, relaxation, and human reconstruction.

Fee for the course, \$5.00.

Dr. W. D. Tait.

### The Development of the Book.

A popular sketch of the history of human records from primitive times to the invention of printing in Europe. After a consideration of early records and writing materials, the hieroglyphics of Egypt and the inscriptions of Babylonia and Assyria are briefly considered, and the development of writing is traced through Greek and Roman times to the Mediaeval manuscript. A brief sketch of the influence of the wood block provides an introduction to the invention of printing. Illustrated with lantern slides and library exhibits.

Particulars as to hours, fee, etc., will be announced before the opening of the session. Dr. G. R. Lomer.

#### Politics.

A course of lectures in politics and political philosophy will be given throughout the session by Mr. Warwick Chipman, K.C., and Mr. Francis Hankin. These lectures are intended to be an exposition of the machinery and practical problems of politics. They will deal with political theory, its development and the most recent enunciations of it; the machinery of Government in the Municipality, Province, Dominion and Empire; the control of this machinery by the elector through his vote under present methods and under suggested methods of Proportional Representation, and the Initiative, Referendum and Recall. The practical questions confronting these various Governments will be considered, such as sociological problems, including national health, education, etc.; problems of property and production, including government ownership, government interference in private industry by control, conciliation between employers and employed, the enforcement of the minimum wage, the eight-hour day, unemployment insurance, etc.; questions of revenue, such as succession duties, the tariff, etc.; problems of national defence and international agreements.

The difficulties arising in dealing with these problems as a consequence of the overlapping of the powers of Provincial and Dominion Governments will be discussed.

The lectures will also deal with the place and powers of Canada within the Empire, and finally the international status of the Dominion in its relation to other countries as a member of the League of Nations, and the responsibilities which this status involves.

The treatment of these questions will be entirely non-partisan. The lectures, about fifteen in number, will be open to the public as well as to the students of the University and will be given at 5.30 p.m. The days and the fee will be announced before the opening of the session.

### Insolvency.

A course of lectures on the law of insolvency will be given by a member of the Faculty of Law. Particulars will be announced in due course.

# Registration and Payment of Fees.

Intending students should register and pay their fees at the office of the Registrar and Bursar, respectively, before the several courses open. For the convenience, however, of those who may be unable to get to the University during business hours, a person authorized to register students and collect fees will attend at the lecture hall about the beginning of the course. All fees must be paid by the evening of the third lecture, and in no case shall any fee be returned.

# DEPARTMENT OF PHYSICAL EDUCATION.

#### FOR MEN.

Director, Department of Physical Education:—Arthur S. Lamb, B.P.E., M.D.

UNIVERSITY MEDICAL OFFICER:-F. W. HARVEY, B.A., M.D.

All students, on entering the University, are required to pass a physical examination (see page 66). By such an examination, any physical defect or weakness may be discovered early, and the student will be advised in regard to treatment. For those defects amenable to treatment by exercise or other hygienic measures, individual attention will be given, and the students will be advised as to what forms of exercise will be likely to prove beneficial or harmful.

#### L. GENERAL.

The aim of the University requirements in physical education is the maintenance and improvement of the physical well-being of the student body, and the production of graduates who are physically as well as mentally fitted for their life-work.

As voluntary exercise is of greater value than compulsory, great latitude is given the individual student in his choice of the type of activity.

The chief factors limiting this choice are:-

- 1. The suitability of the exercise as a means of physical education.
- 2. The physical fitness of the individual student to take the form of exercise chosen.
  - 3. The possibility of effective supervision.
  - 4. The practicability of ensuring regular participation.

The aim is not to replace the existing forms of University athletics, but to assist in developing an interest in these by every legitimate means.

### II. REGISTRATION.

1. At the time of registration every male student of the first three years in the Faculties of Arts, Medicine, Dentistry and Science, and of the first two years in the Faculty of Law shall be given a printed announcement of the University requirements in physical education.\* This announcement shall include a list of the recognized forms of physical activities in which a student may take part in fulfilment of the requirements, and a statement that at the time of his medical examination he will be expected to indicate his choice of the particular forms which he wishes to follow.

- 2. At the time of his medical examination, each student shall be required to fill in a card indicating his choice, as outlined in paragraph II. I. The Director shall then decide as to his physical fitness for the forms chosen and shall inform the student of his decision and note the same on his card, which shall be filed for reference.
- 3. Every student shall be categorized by the University Medical Officer as either:—
  - (A) Fit for all forms of physical exercise.
  - (B) Fit for a limited number of forms.
  - (C) Fit for gymnasium work only.
  - (D) Fit for remedial gymnastics, or temporarily unfit.
  - (E) Unfit for any forms of physical exercise.

### III. EQUIVALENTS.

I. The following activities are recognized as fulfilling the requirements:—

University Rugby Football Team.

University Track Team.

University Hockey Team.

University Basketball Team.

University Boxing, Wrestling and Fencing Teams.

University Swimming and Polo Teams.

University Harrier Team.

University Tennis Team.

University Gymnastic Team.

University Indoor Baseball Team.

University Ski Team.

Gymnasium Classes.

McGill Contingent, C.O.T.C.

<sup>\*</sup>Note:—For the session 1921-22 and until further notice, this regulation will apply to students of the first two years only in the Faculties of Arts, Science, Medicine and Dentistry.

And such other activities as shall be decided upon from time to time by the Committee on Physical Education.

- 2. Subject to the approval of the Director, as laid down in paragraph II. 2, any student who desires to participate in competitive athletics, as mentioned in paragraph III. 1, may be excused from other forms of exercise during the season of training, providing that this is performed to the satisfaction of the Director.
- 3. If successful in making a place on the team, he shall be excused from any other forms of exercise for the season of play, and may be excused for the remainder of the term at the discretion of the Director.
- 4. Any student who has been placed in Categories A, B, C or D at his University medical examination, and who does not voluntarily take part in any of the other recognized forms of exercise as provided above, shall be required to attend the regular gymnasium classes appropriate to his category.

### IV. ATTENDANCE.

- I. The amount of time required to be devoted to physical exercise by each student shall be two hours per week throughout the session. Until such time as the University is in possession of its own gymnasium, however, this amount of time may be reduced by the Committee on Physical Education to meet the exigencies of gymnasium accommodation.
- 2. A record will be kept of the attendance of every student as far as his required physical training is concerned.
- 3. Unexcused absences up to one-eighth of the required number of periods shall be allowed. Unexcused absences exceeding one-eighth, but not exceeding one-fourth, may be allowed if at the end of the session the student passes a special examination and satisfies the Director that he has made sufficient progress. Unexcused abences exceeding one-fourth shall disqualify a student. Such students shall be required to take extra gymnasium class work to the satisfaction of the Director, a supplemental course being given in the month of September for this purpose.
- 4. At regular intervals during each session and also at the end of each session, the Director of Physical Education shall furnish the Dean of each Faculty with a list of students who have failed to meet the attendance requirements as laid down in the ordinary curriculum, or who have proved unsatisfactory in other respects, and such cases shall be dealt with by the respective Faculties.

No student in default shall be allowed to proceed to the next year of his course unless for special reasons exemption should be granted on the recommendation of his Faculty and approved by the Committee on Physical Education.

Not less than one month before the conferring of degrees in each session the Director shall furnish to the Registrar of the University, for transmission to Corporation and the Faculties concerned, a list of all students, being candidates for degrees at the forthcoming Convocation, who have failed to satisfy the requirements of the Committee on Physical Education, and no Diploma for a degree shall be issued to any such candidate unless by the express direction of Corporation.

#### V. EXEMPTIONS.

Claims for exemption from the above requirements shall be made in the first instance to the Director, who shall refer them to a subcommittee on exemptions appointed by the Committee on Physical Education.

#### VI. HEALTH.

Provision is made by the Department for the care of the health of undergraduate students during the session. Hospital accommodation is provided for seven days only, except under special circumstances.

A special leaflet concerning this service and the general work of the Department will be supplied to all students at the opening of the session.

#### VII. MEDALS.

The Wicksteed silver and bronze medals for physical education (the gift of the late Dr. R. J. Wicksteed) are offered for competition to students of the graduating class and to students who have had instruction in the gymnasium for two sessions; the silver medal to the former, the bronze medal to the latter. The award of these medals is made by judges appointed by the Corporation of the University. Every competitor for the silver medal is required to lodge with the judges, before the examination, a certificate of good standing in the graduating class, signed by the Dean or Registrar of the Faculty to which he belongs, and the medal will not be awarded to any student who may fail in his examination for the degree.

#### VIII. STRATHCONA CERTIFICATE COURSE.

The Departments of Education (see page 136) and Physical Education offer the following courses:—

### FOR MEN UNDERGRADUATES OF THE FOURTH YEAR.

A course of 45 hours on the principles and practice of physical education. The course will cover elementary anatomy, physiology and hygiene, the theory of gymnastics and class teaching.

Students who satisfactorily complete this course are entitled to certificate "B" of the Strathcona Trust, and their work is included in the requirements of the High School Diploma of the Province of Quebec.

#### FOR WOMEN.

(ROYAL VICTORIA COLLEGE.)

DIRECTOR OF THE DEPARTMENT:—A. S. LAMB, B.P.E., M.D.
UNIVERSITY MEDICAL OFFICER:—F. W. HARVEY, B.A., M.D.
PHYSICAL DIRECTOR FOR WOMEN:—MISS ETHEL M. CARTWRIGHT.
ASST. PHYSICAL DIRECTOR FOR WOMEN:—MISS GEORGINA M. WOOD.

Classes in educational gymnastics for all undergraduates of the College and for resident students of music are conducted in the gymnasium of the Royal Victoria College (see page 289). All students on entering the University are required to pass a physical examination (see regulation on page 66) and are also required to pass satisfactory physical tests before taking part in any of the outdoor or indoor physical exercises organized by the Department, whether educational, remedial or recreational.

Work in the Physical Education Department throughout the four-year course (amounting to 140 hours in all) is required of all undergraduate students.\* These periods will be used for instruction in personal hygiene and for educational, remedial and recreative gymnastics, according to the physical requirements of the individual. No student will be asked to do work unsuited to her physique, and students debarred from exercise of any kind will be dealt with separately and carefully advised.

Classes in Physical Education required of women students in other faculties than the Faculty of Arts are also held in the gymnasium of the Royal Victoria College.

Partial students are admitted to the classes in educational and recreative gymnastics on payment of a fee of \$5.00 (see page 104).

Reports of attendance in physical education will be regularly sent to the Faculty.

Strathcona Prizes.—Three first prizes of \$8, \$10 and \$12, and three second prizes of \$5, \$6, \$9, are open to students for competition in the second, third and fourth years respectively. Two prizes of \$5 are offered for competition to the students of the first year; one

<sup>\*</sup> In all cases of absence the student is required to report to the Physical Director for Women. The ordinary interpretation of the one-eighth rule concerning absences does not apply in this Department. Every student is required to wear the costume recommended by the Department.

for students who have taken part in educational gymnastics at school, and the other for students who have had no previous physical training.

All competitions will be held under the following regulations:-

- Competitors will be awarded 50 per cent. of the marks on the work of the session.
- 2. No prize shall be awarded unless the judges consider the work up to the standard of 75 per cent.
- 3. The prizes shall not be awarded in the second, third and fourth years should the winner fail to obtain her full academic standing. The prizes in the first year shall not be awarded if the winners fail in more than one subject at the sessional examinations.
- 4. Competitors will be judged on the work taught in the Physical Education Department during the session, the Physical Director for Women arranging all details concerning the competition. A pregramme of the competitions will be posted not later than March 1st.
- 5. Judges for these competitions shall be appointed yearly by the Committee on Physical Education.

#### STRATHCONA CERTIFICATE COURSE.

A course similar to that announced on page 329 is given for the women undergraduates of the fourth year.

#### HEALTH.

See pages 287 and 329.

### McGILL SCHOOL OF PHYSICAL EDUCATION.

The McGill School of Physical Education was established in 1912, and has grown very rapidly from a short summer course to a full two years' course, which is now officially recognized by, and is an integral part of McGill University.

It is the only School of Physical Education in Canada with a full two years' course, and it has been fulfilling its purpose to provide Canada with a training centre for Teachers of Physical Education, with marked success since its inception.

A two years' course, from October to May inclusive, is given in the theory and practice of Physical Education. This course is required for the Diploma of the School, and gives the student a thorough understanding of the mechanism of the human machine, its anatomy, physiology, and the underlying principles governing the various functions of the mind and body. The student is made familiar with the theory and practice of Physical Education in its

many forms, and, in addition to active participation in the various activities, there is, before graduation, a considerable amount of time devoted to actual practice teaching under supervision.

### Residence:

A residence under the supervision of the School is in the immediate vicinity of the University and is available for students.

### **Oualifications:**

In addition to the matriculation requirements, there are certain qualifications necessary for the student who is to become a successful teacher in Physical Education. Because of the intimate contact with the pupils and the tremendous influence that the teacher can exert, the student must be possessed with high ideals, moral character, noble aspirations, and a forceful personality. The student must have ability to initiate, organize and control physical activities, and also be able to counsel and advise upon personal questions with both children and parents. Students must have had some practical training before registration into the fascinating and absorbing profession of Physical Education.

### The Field:

The field for trained teachers in Physical Education is rapidly increasing, and widening in scope, the demand far exceeding the supply in such organizations as the following:—

Public and Private Schools.

High Schools. Colleges.

Y.M.C.A.'s. Y.W.C.A.'s.

Church Clubs.

Playgrounds.

Recreation Centres.

Welfare and Social Clubs.

Settlements.

Industrial Organizations.

Boy Scouts. Girl Guides.

Summer Camps, etc.

#### Admission:

Students will not be admitted who are less than eighteen (18) or more than twenty-seven (27) years of age, except under special conditions.

Two references, one of these from the parent or guardian, must be submitted with the application form. The second reference must not be from a relative.

Partial students will be admitted to special courses at the discretion of the Committee and the work done will count toward the Diploma of the School.

### Courses:

(The School reserves the right to change any of the courses here stated.)

stated.)			
Juniors.		Seniors.	
H	lour.	H	our.
Physics	I	Kinesiology and Applied	
Chemistry	I	Anatomy	1/2
General Anatomy and Phy-		Psychology	I
siology	3	Physiology of Exercise	I
Osteology and Myology	I	Physical Diagnosis	1/2
Voice Development and		Remedial Gymnastics	I
Training	1/2	Anthropometry	1/2
Theory of Physical Educa-		Preventive Medicine	2
tion	I	Theory of Physical Educa-	
Class Management and		tion	I
Teaching	I	Class Management and	
First-Aid	1/2	Teaching	I
Playground Problems	I	Organization and Adminis-	
Gymnastics	5	tration	I
Recreational	4	Child Welfare	I
(Games and Athletics.)		History, Physical Education	1/2
Dancing	2	Gymnastics	3
Aquatics	1	Recreational	3
Practice Teaching	2	(Games and Athletics.)	
		Dancing	31/2
		Aquatics	I
		Practice Teaching	3
		Remedial Gymnastics and	
		Massage	I

The hours as stated indicate sessional hours, one hour equalling thirty periods.

For further information concerning Fees, Matriculation, Registration and details of courses, see special Calendar, obtainable from Secretary, School of Physical Education, McGill University.

### MILITARY TRAINING.

CANADIAN OFFICERS' TRAINING CORPS.

### (McGill University Contingent.)

In order to provide undergraduates with practical military training, a contingent of the Canadian Officers' Training Corps was organized at McGill University two years before the war began, and is still being maintained. Students are thus afforded an opportunity of preparing themselves for service as officers in the Canadian Militia. The contingent is a unit of the active militia, being governed by special regulations, under which it cannot be called out for active service as a unit.

The training is intended to bring the largest possible number of students up to the standard required for the two certificates (A and B) of proficiency. The value of these certificates lies in their being a guarantee of consecutive training for two or more years, of a nature calculated to produce good officers. If a member, who is in possession of a certificate, is recommended for a commission in the Active Militia, this certificate entitles him to rank as an officer without any further qualification, and also to certain other advantages.

To obtain a Certificate (A or B) a member must complete two years efficient service in the corps, and pass the written and oral examinations prescribed for the respective certificates. To be efficient in a given year (1st August to 31st July), a member must have attended 40 parades if in his first year of service, or 25 parades if in a subsequent year, and must have completed the prescribed course of musketry. The time required is about two hours per week each session.

Each member, upon joining the contingent, will be required to deposit the sum of \$5.00 with the Adjutant; for which a receipt will be given. This money will be refunded if the member becomes efficient; otherwise it will go into the funds of the contingent.

The training in the corps is of such a nature that all students are recommended to join. Enlistment is, however, purely voluntary.

### THE GRADUATE SCHOOL.

In the Graduate School are enrolled all the graduate students in the University who are following advanced courses of study in subjects which in the undergraduate work fall within the scope of the Faculties of Arts, Law, and Applied Science.

The Faculty of the Graduate School consists of the professors of the Faculties of Arts, Law, and Applied Science, but the initiative and administration of the School is placed in the hands of a Committee selected mainly from these Faculties and known as the Committee on Graduate Studies. The Chairman of this Committee is the official head of the Graduate School. The advanced courses of study offered in the Graduate School lead to the degrees of Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy.

Instruction for students of the Graduate School is provided in the following departments of study which at present rank as "Subjects":

Philosophy, including Psychology. History.

Economics and Political Science.

Greek Language and Literature (including Grecian History).

Latin Language and Literature (including Roman History).

French Language and Literature.

German Language and Literature.

English Language and Literature.

Semitic Studies.

Archæology.

Comparative Philology.

Education.

Mathematics.

Physics.

Chemistry.

Botany.

Zoology.

Geology and Mineralogy.

Thermodynamics and Theory of Heat Engines.

Theory of Elasticity, Strength of Materials and Theory of Structures.

Hydrodynamics and Hydraulics.

Applied Electricity.

Theory of Machines and Machine

Design.

Metallurgy.

Mining.

Law.

Engineering Physics (see page 120).

The requirements for the several degrees in course are as follows:

### DEGREE OF MASTER OF ARTS.

1. Candidates must hold the degree of B.A. or B.Sc. (in Arts) from McGill University, or its equivalent.

- 2. Candidates must have taken:-
  - (a) One year of resident graduate study at McGill University; or
  - (b) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study. Alternative (b) is open only to graduates of McGill University.
- 3. One, two or three subjects may be taken.
- 4. One of these subjects shall be designated as the major subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. degree. The minor subject, or subjects, may be selected from those of the undergraduate course of the third or fourth year which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoted to these subjects. The student shall pass an examination in each of the subjects of his course.

In the case of students of first rank honour standing in mathematics and physics, if the major work is to be in physics, exemption may be granted from part of the required attendance on lecture courses, on the recommendation of the Head of the Department in physics and subject to the approval of the Committee on Graduate Studies.

Candidates holding the ordinary B.A. degree must have taken all the ordinary undergraduate courses, or their equivalents, in the subjects which they select as their major.

- 5. The student shall also present a thesis on some topic connected with his major subject. The title of his thesis must have been previously submitted to the Committee on Graduate Studies and the Head of the Department concerned for their approval. The thesis must show evidence of distinct ability in dealing with the subject selected, and must also display good literary style.
- 6. Graduates possessing a Bachelor's degree, who act as demonstrators or tutors in the University for the entire session, may proceed to the degree of M.A., and, in so doing, may, at the discretion of the Department with which they are connected, and the Committee on Graduate Studies, omit a portion of the course of study. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for that degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph.D. degree will cover the requirements of the M.A. course; but if such a course of study be followed, a thesis must be submitted and approved before the degree of M.A. is conferred. If. however, the student continues his course of study and takes the degree of Ph.D., the degree of M.A. will be conferred with the degree of Ph.D., in which case no special thesis will be required for the former.

#### DEGREE OF MASTER OF SCIENCE.

- I. Candidates must hold the degree of B.A. or B.Sc. from McGill University, or its equivalent.
  - 2. Candidates must have taken
    - (a) One year of resident graduate study at McGill University;
    - (b) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study. Alternative (b) is open only to graduates of McGill University.
- 3. The course of study followed by the candidate shall be of an advanced character, being the equivalent of that required for the degree of M.A., and shall lie in the domain of pure or applied science. It may be selected from *one* of the last thirteen subjects in the list given above. Geodesy and ore dressing also constitute subjects in the case of this degree. This course of study must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval.

Students desiring to proceed to the degree of Master of Science in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies.

In the case of students of first rank honour standing in mathematics and physics, if the major work is to be in physics, exemption may be granted from part of the required attendance on lecture courses, on the recommendation of the Head of the Department in physics and subject to the approval of the Committee on Graduate Studies.

- 4. The candidate shall also present a thesis on some subject connected with his course of study. The title of this thesis must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval. This thesis must show evidence of distinct ability in dealing with the subjects selected and must also display good literary style. It may deal with some special topic, but the course of study followed by the student must cover a much wider field.
- 5. Graduates possessing a Bachelor's degree who act as demonstrators or tutors in the University for at least one entire session, may

proceed to the degree of M.Sc., and, on so doing, may, at the discretion of the Committee on Graduate Studies, omit a portion of the course of study usually required. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for the degree.

### DEGREE OF MASTER OF LAWS (LL.M.)

Candidates must (1) hold the degree of B.C.L. or LL.B., from McGill University, or its equivalent, or be graduates of an approved law school; (2) have pursued for one year a course of resident graduate study at McGill University and must have submitted a thesis of conspicuous merit upon a subject previously approved by the Faculty of Law and by the Committee on Graduate Studies, and must have passed such examination as may be prescribed.

Applications to be admitted to study under this section must be made to the Committee on Graduate Studies, with particulars of the proposed thesis, not later than the 1st of February of the year in which the candidate proposes to enter upon his course of study. A printed or typewritten copy of the thesis must be delivered to the Dean of the Faculty of Law for transmission to the Committee on Graduate Studies not later than the 1st of April of the year in which the candidate proposes to proceed to the degree.

#### DEGREE OF DOCTOR OF PHILOSOPHY.

- I. The candidate for the degree of Doctor of Philosophy must hold the degree of B.A. or B.Sc. from McGill University, or its equivalent.
- 2. He must have followed a course of at least three years' resident graduate study.
- 3. He must select one major subject and one minor subject. The minor subject selected must be related to his chief line of work. This minor subject shall have devoted to it about one-quarter of the instruction given during the entire course.
- 4. The candidate must satisfy the Committee that he has a reading knowledge of both French and German before he will be permitted to enter upon the course of the second year.
- 5. The examination on the major subjects shall cover not merely the formal courses of instruction which have been taken, but the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his major subject. A similar general, though less detailed, knowledge shall be required in the case of the minor subject.
- 6. The candidate must also prepare a thesis which must display original scholarship or show marked ability to conduct research. If

the thesis be accepted, two hundred printed copies of it must be deposited with the University Librarian before the candidate will receive his diploma.

The University exacts a very high standard in the case of this degree, and at least three years of study are therefore demanded.

A three years' course leading to the degree of Doctor of Philosophy is offered in the following subjects taken as majors:—

Botany.
French.
Philosophy.
Physics.
Chemistry.
Semitic Studies.

Students desiring to proceed to the degree of Doctor of Philosophy in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies, to whom also applications should be made by all students desiring to follow courses of study in the Graduate School.

#### DEGREE OF DOCTOR OF CIVIL LAW.

Any person who has graduated as B.C.L. or as LL.M. from McGill University may after five years from such graduation proceed to the degree of Doctor of Civil Law, provided that he shall have written a thesis on a subject previously approved by the Faculty of 'Law and by the Committee on Graduate Studies, and that such thesis shall have been adjudged by the Faculty of Law and by the Committee on Graduate Studies to be a valuable contribution to legal science. The candidate may, instead of a thesis, submit to the Committee on Graduate Studies a published book or books dealing in a scientific way with some branch or branches of law, and in that case no previous approval is required. Three printed or type-written copies of the thesis or three copies of the book or books, as the case may be, must be delivered to the Dean of the Faculty of Law for transmission to the Committee on Graduate Studies not later than the 1st of February of the year in which the candidate proposes to proceed to the degree.

#### THESES.

Inasmuch as theses submitted by successful candidates for higher degrees are subsequently bound and placed in the Redpath Library, all theses must be prepared in a uniform manner and in accordance with the following specifications:—

1st.—The paper shall be of uniform size, about  $8\frac{1}{4}$  x 10 inches, and of substantial quality.

2nd.—The left-hand margin shall have a uniform width of about 1½ inches. Drawings larger than the prescribed page should be folded in the manner most suitable for binding.

3rd.—All theses shall be typewritten, and if practicable shall be submitted in duplicate. One copy in such case will be returned to the candidate.

4th.—No binding is to be employed, but the loose sheets will be placed in an envelope in the order of their pagination.

All theses for 1921-22 must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 1st, 1922, except in the case of theses involving experimental work, when the time will be extended to April 16th. No thesis received after these dates will be accepted.

#### REGISTRATION.

Application forms, with an outline of the course to be followed, must be filed in triplicate with the Secretary, for the approval of the Committee, before the 10th of October of each year.

Students whose course extends over more than one year must register at the commencement of each year of their course.

Application forms and registration cards may be obtained from the Secretary of the Committee.

## THE UNIVERSITY LIBRARY.

## G. R. LOMER, M.A., PH.D., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors, one Representative Fellow, appointed by Corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science, Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The several libraries of the University now contain over 180,000 volumes and 31,000 pamphlets, considerable collections of maps and photographs, and a number of the rarer and more costly monographs and serials which are indispensable for purposes of research. The Library now receives over 1,100 periodicals, Government publications and transactions of various literary and scientific societies.

Among the special collections possessed by the Library may be mentioned the Mendelssohn Choir Memorial Collection of Works on Music, the T. D. King Collection of Shakespeariana, the Redpath Historical Collection, and the Collection of Canadiana. The nucleus of the latter is formed by the choice library of the late Mr. Frederick Griffin, which he bequeathed to the University about forty years ago. It has been growing ever since, and includes, at the present time, besides numerous manuscripts, an interesting collection of Canadian portraits and autographs, recently increased by a gift from Mr. George Iles. The Canadiana have been further enriched by the recent gift of over 270 volumes and 50 pamphlets from the library of the late Mr. William McLennan, presented in his memory by his children. The library now has an extensive collection of bookplates in process of being classified and mounted.

The Redpath Historical Collection was begun by the late Mr. Peter Redpath soon after he became a Governor of the University. It received substantial yearly additions from him up to the year of his death, after which it was steadily augmented by his widow during the remainder of her life. It is now large and valuable, and affords excellent opportunities for the study of history. Its most striking feature—a series of political, religious and social tracts, for which the first selections were made by the late Professor Henry Morley—

was greatly enriched by the late Mrs. Redpath, and at present comprises about 10,000 brochures, dating from 1600 A.D. to the end of the nineteenth century.

A special Architectural collection, to be known as the "Blackader Library of Architecture," has been established in honour of Captain Gordon Home Blackader, B.Arch. (McGill), who was wounded near Ypres on June 2nd, 1916, and died in London on August 20th of the same year.

"The Emma Shearer Wood Library of Ornithology" was presented by Colonel Casey A. Wood, M.D., as a special research collection and reference library rich in periodical and pamphlet materials for use

by all who are interested in birds.

"The Blacker Library of Zoology" is being presented by Robert Roe Blacker and Nellie Canfield Blacker as a comprehensive reference library on this special subject. It is at present in process of organization and will probably be ready for use in 1922.

"The Barnes Collection" of books on Physics is shelved with the Departmental Library in the Physics Building. The School of Commerce and the Department of Social Service are beginning to make collections of books on their special subjects.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collection of its kind in the Dominion. (See page 345.)

Current periodicals, with Transactions and other Society publications to the number of about 400 in the aggregate, are regularly

received by the Medical Library.

Founded in 1900, as a memorial to the late Mr. Hugh McLennan from his children, the Travelling Libraries of McGill University were endowed in 1911, by their founders. These libraries contain, each, from thirty to forty carefully selected volumes; and are sent, on application, and on payment of a nominal fee of \$4.00, to schools, to country libraries, to reading clubs, and to small communities which possess no public library. Pictures, lantern slides and lectures are also supplied by this department. Regulations and full particulars may be obtained from the Librarian of the University.

Although the Library is maintained primarily for members of the University, the Corporation has provided for admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the Library as useful to the entire community as is consistent with the safety of

the books and the general interests of the University.

The Library serves also as a general reference library for Montreal and has been of service in this capacity to institutions, learned societies, business houses, railways, corporations, and industrial societies. It also has a system of inter-library loans by which it sends books to other libraries and obtains for the teaching staff works not available here.

With the Library are affiliated the McGill College Book Club and the University Book Club, which supply their readers with standard, important and recent publications and make a substantial annual contribution of books to the Library.

## EXTRACTS FROM THE LIBRARY REGULATIONS.

- 1. The University Library is closed on Sundays, and on certain other holidays, as noted in the Calendar of Meetings. With a few exceptions, which are posted in the Library at the appropriate time, it is open as follows:—
- (a) During the session, from 9 a.m. till 6 p.m. and from 7 till 10 p.m. On Saturdays from 9 a.m. till 5 p.m.
- (b) During vacation, from 9 a.m. till 5 p.m. On Saturdays, from 9 a.m. till 1 p.m., except during July and August, when the Library is closed on Saturdays.
- 2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.
- 3. Students in the Faculty of Medicine, who have paid the Library fee to the Bursar, may also read in the University Library, and on depositing the sum of \$5, may borrow books on the same condition as students in other faculties.
- 4. Graduates in any of the faculties, on making a deposit of \$5, are entitled to the use of the Library, subject to the same rules and conditions as students in Arts, Law, or Applied Science.
- 5. Books may be taken from the Library only after they have been charged at the delivery desk; borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.
- 6. Books shelved in the reading-rooms or seminary-rooms must not be taken from the rooms to which they have been assigned; and, after they have been used, they must be returned promptly by readers to their proper places upon the shelves.
- 7. Before leaving the Library, readers must return to the attendant at the delivery desk books which they have drawn from the stack for use in the reading-room.
- 8. All persons using books remain responsible for them so long as the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.
- 9. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person found guilty of

wilfully damaging any book in any way shall be excluded from the Library and shall be debarred from the use thereof for such time as the Library Committee may determine.

10. Damage to or loss of any books, maps, or plates, and injury of library fixtures, must be made good to the satisfaction of the Librarian and the Library Committee.

Damage, loss or injury, when the responsibility cannot be traced, will be made good out of the caution money deposited by the students with the Bursar.

- 11. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card, and requested to return the book. If the time has not been extended, or the book returned, after a further delay of at most three days, the book may be sent for by special messenger, at the borrower's expense, or may be replaced, and paid for, in the case of a student, out of the caution monies of such student; in the case of graduates or other borrowers, out of their library deposits. A fine of five cents for ordinary books and of twenty-five cents for reference books is imposed for each day that a book is overdue.
- 12. Before the close of each session, students must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.
  - 13. Silence must be strictly observed in the Library.
- 14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

#### THE MEDICAL LIBRARY.

Honorary Librarian:—Dr. C. F. Wylde. Assistant Librarian:—Miss Jean Cameron.

The Medical Library is under the management of the Medical Faculty, and is directly controlled by the Honorary Librarian and a Library Committee consisting of the Dean and Assistant Dean of the Medical Faculty, ex officio, and five other members, chosen from the members of the Medical Faculty and the teaching staff respectively.

The Library contains about 29,000 volumes, the greater part—and the most valuable—being its collection of bound periodicals. The list of current periodicals being received regularly numbers 282.

The Casey A. Wood Library of Ophthalmology consists of more than 3,000 volumes, all dealing with this subject, so that this collection is probably the best on the continent.

The late Sir William Osler donated his entire library of approximately 8,000 volumes to the Medical Faculty, and it is thought that this unique and most valuable collection will reach Montreal early in 1922.

## EXTRACTS FROM THE LIBRARY REGULATIONS.

- I. The Library is available for use, according to the rules and regulations, by students and graduates of McGill University, by licensed physicians residing in Montreal, by members of the House Staff of the Montreal hospitals and by registered and certified nurses.
- 2. The Library is closed on Sundays and on certain other holidays, as noted in the Calendar of Meetings. With a few exceptions, which are posted in the Library at the appropriate time, the Library is open as follows:—
- (a) During term, from 9 a.m. till 6 p.m.; on Saturdays, from 9 a.m. till 5 p.m.
- (b) During vacation, from 9 a.m. till 5 p.m.; Saturdays, 9 a.m. till 1 p.m., except in July and August, when it is closed all day Saturday.
- 3. The Stack-Room is only accessible to the staff, and to graduates, on application.
- 4. The books in the Library are classed as follows:—(1) those which may be taken from the Library; (2) those which may not under any circumstances be removed from the Library. The latter class includes all catalogues, dictionaries, books of reference, encyclopedias and the most recent number of current periodicals.

- 5. Students will be allowed to use regular text-books in the Library. These may also be taken out for five days at a time, and in some cases for a fortnight. If books so removed are not returned punctually a fine will be imposed (five cents per day for each book), and if the delay be serious the student may be suspended from the use of the Library, at the discretion of the Honorary Librarian.
- 6. Students may take out books, subject to the above regulations, to the number of three volumes at a time.
- 7. Books may be removed from the Library only after they have been requisitioned for, on the forms supplied for the purpose and signed and dated by the borrower. Borrowers who cannot attend personally will sign the requisition forms and also give the name of the person to whom the books are to be delivered.
- 8. Damage to or loss of books shall be made good to the satisfaction of the Honorary Librarian. Writing or making any mark upon any book belonging to the Library is forbidden. Any person found guilty of wilfully damaging any book in any way shall be excluded from the Library and shall be debarred from the use thereof for such time as the Honorary Librarian may determine.
- 9. No one will be allowed access to the Library out of Library hours.

## THE UNIVERSITY BUILDINGS.

#### THE CENTRE BUILDING.

This is the oldest building of the group. It contains the lecture rooms of the Faculty of Arts, as well as the botanical and zoological laboratories and the offices of the administration.

#### THE CONSERVATORIUM OF MUSIC.

The Conservatorium of Music is situated at the corner of University and Sherbrooke Streets, adjoining the University grounds. On the ground floor are the offices of the Director and of the Secretary, the library and a concert hall where recitals by the staff and students are given during the session and where orchestral and choral practices are held (the more important concerts take place in the large assembly hall of the Royal Victoria College). The second and third floors contain a number of studios, where lessons are given by the various members of the staff, as well as a room for lectures in theory and history of music, sight-singing, etc. In the basement are several practice rooms.

#### THE NEW MEDICAL BUILDING.

This building, erected, in 1911, at a cost of over \$600,000, stands at the corner of Pine Avenue and University Street. Of the central part of the building, the greater portion is set aside for the accommodation of the library, the whole of the front of the second and third floors and a portion of the ground floor being so used. On the third floor is a large students' reading room, 76 x 24 feet, exceptionally well lighted and capable of accommodating 100 readers. On this floor also is the staff journal room and the private offices of the librarian. The second floor is occupied by the stack room, with accommodation for sixty thousand volumes, also by individual research and reading rooms. A portion of the ground floor is set aside for storage. Besides the library, the central portion of the building contains also three lecture rooms, the private museum and offices of the professor of anatomy and the administration office, research and preparation rooms of the museum staffs. To the rear of the central building is the museum, probably the most complete structure of its kind in connection with a medical school on this continent. It is built in the form of a cross, three storeys high, splendidly lighted by ample window space on three

sides and by a large central light well. Each floor is furnished with free stacks and wall cases made of steel and plate glass thoroughly dust-proof. The anatomical collections are placed on the third floor, while the first and second floors are devoted to pathology. In both the anatomical and pathological sections of the museum the specimens have been prepared and classified with a view to their being made use of in the teaching of these important subjects. The east wing gives accommodation for the Departments of Anatomy, Pathology and Bacteriology, the Faculty of Dentistry, the Faculty rooms and administration offices, the mortuary and preparation room for dissecting material, as well as ample space for students' lockers and lavatories, and a large well-lighted students' reading and smoking room. On the ground floor of this wing will be found the mortuary, in which there is provision for the storage of 80 subjects, and leading from this is the preparation room. On this floor also is the large locker room, containing 400 steel lockers, the students' lavatory and the students' reading and smoking room, the latter being provided with newspapers and magazines and being under the control of the students themselves. On the first floor is the Faculty room and a series of rooms for administrative work. The northern half of this floor is occupied by the Faculty of Dentistry, comprising offices, lecture rooms, and modern, well-equipped laboratories. The second floor is wholly occupied by the Department of Pathology and Bacteriology. In the southern half is the Professor's private laboratory and office, four research and preparation rooms, a small demonstration theatre and an assistant's room. The northern half is occupied by the students' laboratory, a room 76 x 40 feet, splendidly lighted and equipped with all the necessary apparatus for modern laboratory instruction. The third floor is taken up wholly by the Department of Anatomy, and contains, besides private offices and research rooms for the Professor and staff, a large dissecting room, 88 x 40 feet, excellently lighted and fully equipped. There is also on this floor a large layatory and students' locker room. Between the second and third floor is a mezzanine floor, which is devoted to the Department of Parasitology. Here, besides the private offices and research rooms of the Professor, there are four fully-equipped laboratories for advanced work. The west wing contains a large assembly hall. The remaining space is occupied by the Departments of Pharmacology and Hygiene.

#### THE OLD MEDICAL BUILDING.

This consists of the north wing of an originally larger building, the south wing of which was destroyed by fire in 1907. It accommodates at present the Departments of Physiology and Biochemistry.

The ground floor is set apart for Biochemistry. On the eastern side of the hall is the students' laboratory, 45 x 80 feet, equipped for

100 students. A research laboratory with eight working places and adjoining professor's room, private balance room, etc., connect with the large laboratory. On the western side of the hall is the combined lecture room for Biochemistry and Physiology, with seating capacity for some 300 students. Adjoining the theatre are two preparation rooms and store rooms and a small biochemical museum. The students' balance room and a dark room for polariscopic and photographic work are opposite the main entrance to the chemical laboratory.

The mezzanine and top floors are devoted to Physiology. The former contains a suite of rooms for aseptic operations on animals (reception rooms, bath room, theatre, hospital, etc.), and a series of research laboratories. On the top floor are two large practical rooms, accommodating in each case 96 students. One of these, for junior students, is fitted with long tables carrying motor-driven shafting for recording drums. The other, for senior students, is equipped as a mammalian laboratory, with long-paper kymographs, air-pump, central hot water tank, etc. Likewise, on the top floor are private laboratories, store rooms, a demonstration theatre, workshop, etc.

In the basement of the building are students' lavatories and locker rooms; also the frog and turtle tanks. A separate two-storey building in close proximity to the Old Medical Building serves as an animal house.

## THE MACDONALD ENGINEERING BUILDING.

This building is designed to provide accommodation for six hundred students. The Departments of Civil Engineering and Architecture are permanently provided for, while the Departments of Electrical and Mechanical Engineering are given temporary accommodation until such time as independent buildings can be provided for the growing numbers in these departments. The ground floor is given up to the civil engineering, geodetic, electrical and mechanical engineering laboratories, and is for the most part 23 feet in height. Mechanical and electrical engineering laboratories and the workshops also occupy the three lower floors of the Workman Building. The centre portion of the second floor is used for purposes of administration (faculty rooms, offices, library, etc.). The front parts of the second and third floors are occupied by eight class rooms which contain 700 seats, while the upper floors, both of the Engineering Building and the Workman Building, are devoted to drafting rooms, containing over 500 tables. The building throughout is of the most approved fire-proof construction, not only in the matter of materials, but in arrangement as well, the several floors being divided by fire walls and fire doors into separate sections. It was erected, in 1909, at a cost of about half a million dollars.

#### THE MACDONALD CHEMISTRY AND MINING BUILDING.

In addition to the large lecture theatre, which seats about 250 students, there are here four lecture rooms for smaller classes and a number of offices. There are also three large general chemical laboratories (each with a floor space of about 2,400 square feet and accommodation for 200 students at a time), large laboratories for assaying, ore dressing and metallurgy, with a very complete equipment, and a number of smaller rooms and laboratories for special purposes, including research work. The reference library contains about 1,400 volumes.

#### THE MACDONALD PHYSICS BUILDING.

This building is five storeys in height, each floor having an area of 8,000 square feet. Besides a lecture theatre and its apparatus rooms, the building includes an elementary laboratory nearly 60 feet square, large special laboratories, a range of rooms for optical work and photography, separate rooms for private work, and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room for mathematical physics, a special physical library and convenient workshops.

#### THE UNIVERSITY LIBRARY.

This building, which is a fine example of the Romanesque style of architecture, was erected in 1892 by Mr. Peter Redpath, a Governor of the University, and was enlarged in 1900. The general reading room is 110 feet long, 44 wide and 34 high, and will seat 150 readers. The book stacks, four and five storeys in height, have a working capacity of 150,000 volumes. The Medical Library is described in the paragraph dealing with the New Medical Building.

#### THE OBSERVATORY.

The Observatory is equipped for instruction in the use of meteorological instruments and in astronomical work. It is the Montreal station of the Meteorological Service of Canada. Time signals are given to the city, the railways and to the shipping.

## THE POWER STATION.

The new Power Station supplies heat to the following buildings: New Medical Building, Old Medical Building, Engineering and Workman Buildings, Chemistry and Mining Buildings, the Physics Building and the Arts Building. It also furnishes current for light and power to these buildings and to the Royal Victoria College, the Union and Strathcona Hall. The equipment of the station includes boilers of 1,000 H.P. nominal capacity, provision being made for future extension, and engines and generators of 600 kilowatt capacity. The coal

bunkers hold 500 tons. The heating distribution is partly by tunnel and partly by underground conduit, the farthest building served being at a distance of 700 feet from the station. Electric cables are placed underground in vitrified clay conduits.

#### THE REDPATH MUSEUM.

The Museum occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collection, it contains a large lecture theatre, class rooms and work rooms. The collections in botany, palæontology, geology and zoology are very fully and admirably arranged for teaching purposes.

#### THE ROYAL VICTORIA COLLEGE.

This is a residential college for the women students of McGill University. It is situated on Sherbrooke Street, in close proximity to the University buildings and laboratories. On the ground floor are the offices of the administration, lecture rooms, students' common room, and a spacious dining hall. A gymnasium is fitted up in the basement. On the first floor are other lecture rooms, the library, reading room and a handsome assembly hall. The second and third floors are given up entirely to rooms for resident students. These rooms are handsomely furnished, as indeed is the whole building.

## STRATHCONA HALL.

Strathcona Hall is the home of the Young Men's Christian Association of the University. The building is 55 feet by 110 feet, and is five storeys in height. The three upper storeys are arranged to afford residential accommodation for about sixty students. On the ground floor are the secretary's office, sitting rooms, cloak rooms and a hall capable of seating 350 persons. The second floor contains a large reading room, a large game room, and five small rooms for the use of clubs and societies.

#### THE UNION.

The McGill Union stands at the corner of Sherbrooke and Victoria Streets, within two minutes' walk of the College gates. The building measures 93 feet by 71 feet and consists of three storeys and a basement. On the main floor are the dining and luncheon rooms; on the second floor, billiard rooms, a news hall, a reading room and a library, a study and a lounging gallery (88 ft. by 21 ft.). The large hall is situated in the top storey. It measures 88 ft. by 45 ft. and has a seating capacity of 400. There are also smaller rooms for society meetings, etc. In the basement are baths, locker rooms and an exercise room (24 ft. by 38 ft.). The Union is the social centre of the University, the common meeting ground for students of all faculties. It is intended to promote a broad and true university spirit.

#### GEOLOGY, MINING AND METALLURGY BUILDING.

As part of the programme which has been decided upon by the Governors of the University, an additional building, to be known as the Geology, Mining and Metallurgy Building, will be erected in 1922 on the University grounds, probably fronting on University Street. This will provide adequate accommodation and a thoroughly up-to-date equipment for the Departments mentioned above. The transfer of these Departments from their present quarters in the Chemistry and Mining Building will leave this building for the exclusive use of the Departments of Chemistry and Chemical Engineering, which will thus be provided with the additional space which they now so greatly need.

# LABORATORIES, MUSEUMS AND WORKSHOPS.

## LABORATORIES.

## CEMENT LABORATORIES.

The laboratory is equipped for making complete tests on the strength and properties of cements, mortars, concrete, concrete beams, etc., and includes the following:—Tensile testing machines, hydraulic compression machine (50 ton), specific gravity apparatus, sieves for fineness tests, steaming apparatus, Vicat's and Gilmore's needles, metal moulds, mixers, rammers, balances, etc. Tanks are provided for the storage of briquettes and other test specimens, and the equipment is supplemented by that of the Strength of Materials Laboratory in making tests on large sized specimens.

All engineering students make the standard test on cements and mortars and also tests of concrete, plain and reinforced, as part of the instruction in strength of materials.

#### CHEMICAL LABORATORIES.

## (In the Chemistry and Mining Building.)

The three principal laboratories have each a floor-space of about 2,400 square feet and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, have special ventilation, and have ample hood space. Laboratory A is planned for beginners, and the other two for more advanced work; B for quantitative analysis and C for organic preparations and qualitative analysis. In connection with each of the main laboratories is a balance-room equipped with balances by several of the best makers and an instruction room.

Physical chemistry is provided for in a special laboratory, nearly 30 by 40 feet, supplied with electricity, steam, vacuum pumps, etc. The equipment of this laboratory consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, of the rise of boiling point, and of densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, Kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. On the same floor there is an optical room, devoted more

particularly to crystallographic work and furnished with goniometers, polarising microscopes, axial-angle apparatus, refractometers, etc.

Immediately adjoining the laboratory of physical chemistry is the photographic department, supplied with two dark rooms, arranged on the maze system, and provided with the necessary appliances for all ordinary photographic work, including an enlarging camera and apparatus for micro-photography.

The laboratory for gas analysis is fitted with a large tank to contain water at the temperature of the room, for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliott and others. It contains also Fleuss, Boltwood, and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopiles, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room has lately been equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. There is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

 The laboratory for industrial chemistry is especially ventilated and fireproofed. Here operations on a semi-commercial scale may be conducted, involving the use of explosive and other dangerous chemicals.

The Chemistry Building is well supplied with small research laboratories for graduate and other research students.

#### ELECTRICAL LABORATORIES.

The experimental equipment of the electrical department is contained in the fourth year, third year, standardizing, high voltage, oscillograph and photometer laboratories. Power is supplied to these laboratories from the 220-volt, 3-wire, D.C. generators in the central power house. The voltage is maintained approximately constant on the two sides of the system by a balancer set located in the fourth

year laboratory, which is also equipped for supplying constant voltage circuits of 125 volts.

The Main Laboratory is equipped primarily for the study of alternating current phenomena and is equipped with: Motor-driven alternators of various types, giving a range of frequency of from 25 to 250 cycles per sec.; single and polyphase induction motors of the squirrel cage and wound rotor types; single phase series and repulsion motors; constant voltage and constant current transformers; mercury arc rectifier; rotary converters; potential regulators; meters for the measurement of current, voltage, power, frequency, power factor, and wave form; rheostats, circuit breakers, condensers, reactance coils, synchroscopes and other auxiliary apparatus. An electric travelling crane spans the laboratory and gives facilities for the rearrangement of the machines.

The Main Laboratory is also used by the third year electrical students for the study of current flow in circuits and of direct current machinery.

The Electrical Laboratory on the third floor of the Workman Building is used by the students of other departments who are taking an elementary electrical course, for the study of both direct and alternating current phenomena. The laboratory is equipped with: Shunt, compound and series wound direct current generators and motors of different types; constant current generators; are and incandescent lamps; meters for the measurement of current, voltage and power; rheostats, circuit breakers, starters and other auxiliary apparatus. Several small alternators, transformers, rotary converters and induction motors along with the necessary instruments and control apparatus are provided for use by the students taking the general elementary course. A hand-operated travelling crane gives facility for the rearrangement of the machines.

The Standardizing Laboratory is equipped for the accurate measurement of direct currents to 1,000 amperes and voltages to 1,500 and of alternating currents to 200 amperes and voltages to 1,500. By the use of standard instrument transformers, alternating currents to 5,000 amperes and voltages to any reasonable value may be accurately measured. The equipment includes: Kelvin current and watt balancers; Weston laboratory standard ammeters, voltmeters and wattmeters; potentiometers; Wheatstone and conductivity bridges; galvanometers, standard resistances and cells and other special apparatus.

The power is obtained from two motor generator sets, from one of which direct current to 1,000 amperes may be obtained, and from the other alternating current may be obtained over a considerable range of frequency up to 1,500 amperes and at any phase relation to voltages up to 440.

The High Voltage Laboratory contains the following equipment: Four 200 to 50,000 volt transformers supplied with condenser bushings and insulated so as to operate up to 300,000 volts; one 200 to 2,000 volt insulating transformer; one 110 to 20,000 volt testing transformer; standard spark gaps for oil and air; cathode ray tubes, electrostatic voltmeters and other auxiliary equipment. The transformers are provided with auxiliary voltage coils for direct pressure measurement and for connection to the oscillograph. The connections to this laboratory are such that any machine in the department may be used as a source of power and controlled directly from the transformer room, so that a wide range of frequency and of wave form is available for experimental work.

The Photometer Laboratory contains a Reichaustahlt type precision photometer bar with a wide range of certified standard incandescent lamps, hand operated and power driven universal rotators, motor driven sector disk and a complete set of screens, also a Matthew's integrating photometer for incandescent lamps. A Sharp Millar portable photometer and standardizing set is also installed, with a full range of controlling rheostats and instruments provided with permanent wiring.

Oscillograph Laboratory.—This is equipped with a Blondel triple oscillograph, with both visual and photographic attachments, and is specially adapted for the study of transient phenomena. The department maintains a small machine shop for instrument and machine repair and for the construction of special experimental apparatus.

Wireless Telegraph Laboratory.—A permanent aerial, 350 feet in length, of the inverted "L" type, has been installed, with a natural wave length of 600 metres. Waves varying in length from 500 to 8,000 metres can be detected. A number of receiving sets have been loaned to the department and others are being constructed.

## FOREST PRODUCTS LABORATORIES OF CANADA.

The Forest Products Laboratories of Canada, established by the Canadian Government in 1913, under the Forestry Branch, Department of the Interior, are associated with McGill University, and are located at 700 University Street, Montreal. The primary function of the laboratories is experimental research in the utilization of forest products, as a means toward the improvement of present industrial methods and the extension of commercial opportunities in this field.

There are four operating divisions, for technical research in timber tests, timber physics, pulp and paper and wood preservation. Provision is made for the establishment of other research divisions, as opportunity develops.

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The Division of Timber Tests is engaged in the investigation of the mechanical properties of Canadian woods, primarily for the collection of data on the relative strength values of various species. as a basis for classification of timber as structural material and for miscellaneous commercial uses. The testing work of this division is carried out in the Strength of Materials Laboratories of McGill University. By arrangement with the University, provision has been made for the joint use of the Wicksteed, Emery and Riehle testing machines included in the equipment of this University department. The Forest Products Laboratories have installed one 30,000-pound capacity Olsen Universal machine, fitted with attachments of special design to meet the requirements of various testing methods, and one Hatt-Turner impact machine. Accessory apparatus includes deflectometers, compressometers, planimeter and calculating machines for reduction of test result. A saw mill and wood working shop are maintained in connection with this division. Another timber testing laboratory has recently been established in co-operation with the University of British Columbia, Vancouver, B.C.

The work of the Division of Timber Physics includes the investigation of the physical properties of wood,—specific gravity, moisture content, rate of growth, etc.—for correlation with mechanical and other characteristics, the microscopic anatomy of wood and study of fibres, and photography. Drying racks, electric ovens and balances are in use for this work, while apparatus for miscroscopic study includes one Jung-Thoma microtome (Thomson modification), two microscopes, microscopic micrometers and accessory appliances for use in preparation of slides, fibre measurements and other microscopic determinations. The photographic department of the division is provided with a fully equipped dark-room and complete range of photographic apparatus, including special Bausch and Lomb horizontal photomicrographic outfit, cameras and projection lantern.

The Division of Pulp and Paper is engaged in the investigation of the paper-making possibilities of Canadian woods, the practical study of processes related to this field and research in fundamental problems of the chemistry of wood. A complete semi-commercial paper mill has been installed for investigation on a large experimental scale. This equipment includes one single Marx beater, one double Marx beater, one small Jordan engine for refining paper stock; one riffler, one Packer flat screen, and one complete Pusey and Jones paper machine (wire 25 feet by 33 inches). Other equipment includes one complete Erfurt sizing system for preparation of rosin size, two gas fired boilers, small digester and paper testing instruments. Larger digesters, corresponding in capacity to the larger experimental equipment, are planned for future installation. The chemical laboratory

of this department is provided with complete equipment for experimental research in the chemistry of wood.

The Division of Wood Preservation is concerned with the investigation of methods of preservative treatment for the protection of timber against decay and insect destruction. The experimental laboratory of this division is provided with equipment for impregnation of wood with preservatives under pressure. This equipment includes one horizontal retort, 2 feet in diameter and 12 feet long; operating tank of corresponding capacity; one small vertical retort and tank, all designed for high pressure; pumps, air compressor and dry vacuum pump, receivers and condenser. A chemical laboratory in this department is used for analysis of preservatives and examination of treated material. A small laboratory is equipped for experimental studies in wood pathology, which includes the development of cultures of wood destroying fungi, accelerated tests of durability and microscopic examinations.

#### GEODETIC LABORATORY.

The equipment of this laboratory consists of:-

- (1) Linear instruments: a Rogers comparator and standard bar for investigating standards of length; a fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.; a Munro-Rogers linear dividing engine.
- (2) Circular instruments: a Rogers circular comparator; four level triers.
- (3) Time: an astronomical clock and clock circuit in connection with the observatory clocks; chronometers running on mean and sidereal time; chronograph.
- (4) Gravity: a portable Bessel's reversible pendulum apparatus with special pendulum clock and telescopic apparatus for observing coincidence by beats.
  - (5) A water gauge apparatus for testing aneroid barometers.

The laboratory and clock rooms are constructed with double walls and enclosed air spaces, and their heating is controlled by special thermostats, so that the temperature within may be brought to, and held at, any desired degree.

Astronomical Observatory.—The observatory equipment for the purpose of instruction in practical astronomy consists of: A Bamberg prismatic transit with zenith attachment; six astronomical transits for meridian observations; two Troughton & Simms zenith telescopes; an alt-azimuth instrument; sidereal and mean time clocks and chronometers, chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

#### HYDRAULIC LABORATORY.

In this laboratory the student studies experimentally the laws governing the flow of liquids through orifices, pipes, weirs, etc., and also carries out experiments on the efficiency of various forms of water motors running under different conditions as regards head and supply.

The equipment includes:—Apparatus for the measurement of the discharge of water from orifices, nozzles, weirs, etc., under varying conditions; arrangements for investigation of the loss of head by surface friction, and at curves and bends in pipes; Venturi meter for use at different discharges; a hydraulic ram working against different heads; various water motors, including Pelton wheels, Girard impulse turbine; inward flow reaction turbine, American turbine; apparatus for measurement of pressure due to impact of jets on surfaces of different forms; gauge testing appliances; Hele Shaw's apparatus for study of the steam lines in a perfect fluid, illustrating the flow round obstructions in a channel, and numerous magnetic problems; numerous calibrated tanks, weighing appliances, and measuring apparatus in connection with the above.

## MECHANICAL ENGINEERING LABORATORIES.

These laboratories are used in connection with the courses in Mechanical Engineering subjects. The smaller apparatus belonging to the laboratories includes the necessary equipment of weighing machines, ordinary and water dynamometers, steam calorimeters, thermometers, gauges, pyrometers, coal, gas and oil calorimeters, indicators, planimeters, flue gas analysis, etc.

#### Mechanical Laboratory.

The equipment of this laboratory includes:—A belt testing machine capable of taking a six-inch belt at 15 feet centres (the machine has special hydraulic dynamometers and a friction brake and will absorb 15 H.P.); a Thurston railway pattern oil tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; standard viscosimeters and other necessary apparatus for the physical testing of lubricants; a high speed horizontal engine having a cylinder 6 inches diameter, 9 inches stroke, and operated by compressed air; a gas-fired preheater for the above engine; two standard 91/2-inch Westinghouse airbrake pumps, fitted for testing and for supplying compressed air for experimental and other purposes; a non-rotative Blake steam pump, having steam and water cylinders 41/2 and 23/4 inches diameter and 41/2 inches stroke; apparatus for measuring the heat loss from pipe coverings and from radiators; a specially designed hydraulic support and fittings, for carrying out experiments on the action of cutting tools in the lathe;

apparatus for experiments on the efficiency of pulleys and hoisting appliances; on the efficiency of worm and other gearing, for governor testing; for testing fans and blowers; for studying problems connected with the balancing of reciprocating engines.

## 2. Steam Engine Laboratory.

This laboratory is furnished with an experimental steam engine of 120 I.H.P., specially designed for investigating the behaviour of steam under various conditions. The cylinders are 61/2 inches, 9 inches, 13 inches and 18 inches in diameter, and the stroke of al! the pistons is 15 inches. The cylinders can be so connected as to allow of working as a single, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed. This laboratory also contains the following machinery:-A Robb automatic cut-off engine, having a cylinder 101/2 inches in diameter by 12 inches stroke, which is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up to 300 revolutions per minute; an automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches in diameter by 121/2 inches stroke, in connection with which there is an automatic recording apparatus for registering the load on the brake; a Leonard horizontal engine, having a cylinder 8 inches diameter by 9 inches stroke, specially fitted for instructional work in valve setting and provided with an independent surface condenser; a two stage air compressor (built in the workshops of the Department) taking 40 H.P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke (the compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired); a 15 K.W. Curtis steam turbo-generator with independent surface condenser, air pump, and a bank of lamps for varying the load; two 12 H.P. high-speed forced lubrication compound engines (built in the workshops of the Department), one of which is used to drive a Hall 1-ton Co, ice machine.

Steam is supplied to this laboratory by the boilers in the Workman Building. These consist of one 100 H.P. locomotive boiler, Belpaire type, fitted with Howden oil burning furnace, two Babcock and Wilcox

water tube boilers, each 60 H.P., and one Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 100 H.P. These boilers are fitted with the necessary tanks, weighing machines and apparatus for carrying out evaporative tests. For the study of superheated steam, there is a B. & W. separately fired superheater.

## 3. Gas Engine Laboratory.

This laboratory contains a horizontal gas engine by the National Gas Engine Company, having a cylinder 12 inches diameter by 20 inches stroke and developing 40 B.H.P.; a suction type producer for the above, with the necessary scrubbers and gas cleaning apparatus; a down draft producer designed for working with lignite and bituminous coal; a standard 4-inch gas meter, gasometer, and exhauster; a 10 B.H.P. Otto type gas engine (built in the workshops of the Department), having a cylinder 8½ inches diameter by 12 inches stroke; a 14 B.H.P. 2-cylinder 2-cycle Grey gasoline engine and a 4 H.P. Blackstone oil engine.

#### METALLURGICAL AND ASSAYING LABORATORIES.

These consist of a large furnace room of 2,000 sq. feet, for metallurgical operations, a furnace room for assaying of 1,300 sq. feet, a balance room, small chemical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace, 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., and a Bruckner roasting furnace.

The furnace room adjoins the milling and ore-dressing room (see below), and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching treatments. In addition to this comparatively large scale plant, apparatus has been provided to enable the students to study in detail the more important metallurgical operations, using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances, the work of the student can be of a more individual character than is generally possible with large-scale plants, and the reactions which occur can be more easily and exactly studied.

For the purpose of small-scale work there is a large crucible furnace which can be used with either natural or forced draught, an oil-fired crucible furnace, an oil-fired assay furnace, a large gasfurnace which can be used either as an oven-furnace or a muffle furnace, and a number of small muffle and crucible furnaces in the assaying laboratory. Several small dental furnaces have been added for the course of instruction in dental metallurgy.

Small blast-furnaces, lined with brick, have been constructed and used successfully for smelting small quantities of copper and cobalt ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

Provision has also been made for electric furnace work. The plant consists of a 50 H.P. motor and a 30 K.W. alternating current generator, together with transformers and measuring instruments. A Colby induction furnace and a Rennerfelt arc furnace have been installed for making steel electrically, and the smelting of ores and other electric furnace operations can be carried on satisfactorily with this plant. A low-voltage I H.P. direct-current generator is employed for electrolytic operations. An electric muffle furnace, having carbon resisters and a carbonundum muffle, is in regular use for determining the melting temperature of refractory materials, measurements being made with an optical pyrometer and Seger cones. The furnace can be heated to 1800 °C.

. A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that have to be conducted under great pressure.

A small drop-testing machine, a Sankey metal bending tester, and a Brinell Hardness tester have been installed for investigating the mechanical properties of metals.

The assaying laboratory is equipped with a number of muffle and crucible furnaces fired with coke, a large gas muffle furnace and a small muffle furnace and crucible furnace fired by gasoline.

Adjoining the assaying laboratory is the balance room and a small laboratory for chemical work. In another room are a number of electrical and other pyrometers, metallographic microscopes, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. Polishing machines worked by power have been installed to prepare specimens for examination.

#### MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory for ore-dressing, and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 8,500 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,500 feet.

The ore-dressing laboratory proper is built in two storeys about a central well and has about 5,000 feet total floor space. The equipment comprises two classes of apparatus. First, a large number of

pieces especially designed for individual work on a small scale. Many of these are for elementary investigation and demonstrations of a theoretical nature, others are working reproductions on a reduced scale of typical ore dressing and milling machines. Second, a complete plant of standard apparatus for ore crushing, sampling, milling, concentrating and for coal washing. This apparatus has been chosen from the best designs in common use and whenever possible each important class of ore-dressing machinery is represented by two or more different types, in order that comparisons may be made. Each machine is so arranged that it may be used and tested independently, but, when expedient, a number of machines can be connected by conveyors, and thus complete plants of various kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the main laboratory are rockbreakers of four kinds, Blake, Dodge, Gates, and Sturtevant, for coarse crushing; gravity stamp mills of 600 and 950 lbs., respectively, a small steam stamp and a 3-foot Huntington centrifugal roller mill, for crushing and amalgamating; high speed steel-tyred rolls for fine crushing; Sturtevant and Gates grinders for preparing samples, and ball mills, pebble mills and amalgamation pans for extremely fine grinding. Following these there are Bell, Jones and Brunton samplers; a Callow belt screen; a series of trommels and power shaking screens for sizing the crushed ores; two especially designed jigs of two and four compartments with adjustable eccentric, cam and slide mechanism, a pneumatic jig, a Richards pulsator jig, a Taylor vibrating jig and several small hand and power jigs for coarse and medium concentration; slime tables of several types, including a Frue vanner, a Wifley and Butchart riffled tables, with a series of Bell's feeders, etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; agitators, vats, pressure and vacuum filters, and other apparatus for flotation, cyaniding and other extraction processes; spitzkasten, spitzlutte, magnetic separators, an electrostatic separator, coal washers, cones, and various other special pieces of ore-dressing apparatus.

An hydraulic lift and a number of belt and bucket hydraulic jet elevators, feeders, samplers, steam-jacketed drying tables, etc., are provided for use in heavy continuous work. The power chiefly used is electricity, generated in the University power and light station and utilized through a number of independent electric motors aggregating 75 H.P. conveniently placed near the machines to be operated, but steam is used for some pieces of apparatus and others may be driven by a Pelton wheel. A motor-driven vacuum pump and air-compressor of 7½ H.P. provides an ample supply of compressed air. The department is equipped with suitable apparatus for electrical measurements,

and is thus able to make continuous and accurate determination of the amount of power used by each machine.

In addition to the main laboratory, there are excellent facilities for advanced and research work—including a small but thoroughly equipped chemical and assay laboratory and a photographic room. The department possesses a number of cameras, microscopes, recording gauges and indicators, a good equipment of weighing and measuring devices, and a number of pieces of special apparatus for advanced theoretical investigation.

#### PETROGRAPHICAL LABORATORIES.

The petrographical laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building. It is provided with a number of petrographical microscopes by Seibert, Crouch, and Fuess, as well as with models, sets of thin sections, electromagnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students, and a complete equipment for cutting, grinding, and polishing rocks has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

For advanced work and petrographical investigation, Dr. Adams' extensive private collection of rocks and thin sections is available for purposes of study and comparison.

#### THE PHYSICAL LABORATORIES.

The equipment of the Macdonald physical laboratories comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by students in practical work; (3) various types of all important instruments for exact measurements, to be used in connection with special work and research.

The magnetic laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer. The laboratory on the opposite side of the basement contains a Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones.

There is a constant temperature room, surrounded by double walls, which is fitted for comparator work.

The first floor contains the main electrical laboratory, which is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the floor, and rest on independent foundations, in addition to the usual slate shelves around the walls. This room contains a large number of electrometers, galvanometers, potentiometers,

and other testing instruments of various patterns, and adapted for different uses. Three small research laboratories adjoin the electrical laboratory. A well equipped workshop serves for the construction of research apparatus and repair work.

On the second floor of the building there is the heat laboratory, devoted to advanced work in thermometry, pyrometry and calorimetry and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. This adjoins a private laboratory fitted for research work.

The third floor contains two small lecture rooms, a library and reading room for the staff and professors' rooms.

The fourth floor contains the large elementary laboratory, a room 60 feet square, devoted to elementary practical work in heat, sound, light, electricity and magnetism. There is a demonstrators' room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room, containing a sixinch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters; also a series of smaller optical rooms, including a photometric room, especially fitted for arc photometry, and a dark room for photographic work.

#### LABORATORY OF PHYSIOLOGY.

The physiological laboratory occupies the upper and the mezzanine floor of the Old Medical Building. The two main teaching laboratories, situated on the upper floor, are each lighted from roof and side and accommodate, in each case, 96 students. One of these, for the junior class, has long tables provided with separate motors and shafting for the recording drums. This room is fitted with display cases for physiological instruments and also contains a series of demonstration microscopes. The senior practical room, designed for mammalian work, has sixteen fixed tables arranged in parallel rows (units) of four, each unit-group of four being set out at the same time with the same apparatus. All the tables are fitted with gas, with water-supply and with various electric leads, while units of four are, according to circumstances, provided with separately motordriven, long-paper kymographs, with air-supply for artificial respiration, with hot water at controlled temperature for perfusion, etc. In close proximity to the two practical rooms is a demonstration theatre, employed for instruction at the commencement of practical work or independent demonstration.

On the top floor are also the workshop, the preparation and store rooms, drum-smoking and varnishing rooms, dark room, balance room, string galvanometer room, library, lavatories and some research rooms. The mezzanine floor contains the animal reception, the hospital and operating rooms, as well as additional research rooms.

The frog and turtle tanks are in the basement. A separate twostorey building in close proximity to the department gives accommodation to mammals.

#### THE PSYCHOLOGICAL LABORATORY.

The psychological laboratory occupies two rooms in the Arts Building. It contains apparatus for the study and investigation of sensation, perception, ideas, memory, association, attention, volition, feelings, emotions and reaction. This equipment serves three purposes: First, it is adapted to research work in the various fields of experimental psychology, including physiological psychology, educational psychology, and applied psychology. Second, it is used to acquaint beginners with the methods of experimental psychology, both qualitative and quantitative. Third, it furnishes material for experimental demonstration in the elementary and advanced lecture courses.

## STRENGTH OF MATERIALS LABORATORIES.

These laboratorics are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

- (a) Richle testing machine of 60,000 lbs. capacity, a Wicksteed 100-ton, a Wicksteed 50-ton, and an Emery 75-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc. An Olsen machine of 10,000 lbs. capacity is used for testing wire.
- (b) A Rondet-Schor Machine, with a capacity of 500 kilograms, for testing textile fabrics.
- (c) A Torsion Machine with a specially designed angle measurer, by which the amount of the torsion can be measured with extreme accuracy.
- (d) An accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, an impossibility when any form of pump is substituted for an accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the accumulator.

- (e) A Blake and Worthington steam pump and an electric pump, designed to work against a pressure of 3,600 lbs. per square inch. The accumulator may be actuated by any of the pumps, and, if at any time it is necessary to do so, any of the pumps may be employed to actuate the testing machines direct. When in operation, the work of the pump and the accumulator is automatic.
- (f) Extensometers of the Bovey, Ewing, Unwin, Martens, Marshall and other types.
- (g) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.
  - (h) Various electric motors for working the several machines.
- (i) A drying oven for beams up to 26 feet in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.
- (j) Numerous gauges, amongst which may be specially noticed an Emery pressure gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.
- (k) Special apparatus and recording gauge for the testing of hose, etc.
- (1) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.
  - (m) Apparatus for determining the elasticity of long wires.
- (n) Apparatus for determining the hardness of materials of construction, including Shore scleroscope.
  - (o) Zeiss and other microscopes.
- (p) Delicate chemical and other balances. A very important part of the equipment is the Oertling balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.
- (q) Apparatus for the microscopic study of metals and for microscopic photography.
- (r) Micrometers of all kinds, including a 10-inch Howard gauge, and Berry strain gauges.
- (s) A transverse bending machine which is adapted for loads up to 3,000 lbs. and for beams of 10 ft. span, and a testing machine for applying bending and torsion simultaneously.

#### ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of the Arts Building and a large portion of the floor immediately below. It consists of:-

- (a) A large laboratory affording accommodation for a class of 80 students.
  - (b) A smaller laboratory capable of seating about 18 students.
  - (c) Three small laboratories fitted up for purposes of research.

## 2. MUSEUMS.

#### ARCHITECTURAL MUSEUM.

The Museum of the Department of Architecture contains a representative collection of historic casts illustrating the development of architectural ornament and form, and the technique of architectural material. Many of the casts have been specially prepared for the Department. The group of English mediæval art is unique in any University on this continent. The collection of metal work includes examples of iron, brass, copper and jewellery, and is arranged so as to exhibit the technical possibilities of the material.

#### MUSEUM OF HYGIENE.

## DIRECTOR:—PROF. T. A. STARKEY.

The material in the museum has been rearranged with a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of public health, but also examples of types which are to be avoided on hygienic principles.

In order to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:—

- 1. Disinfection.—Including disinfection apparatus of all kinds, disinfectants and antiseptics.
- 2. Lighting and Heating.—Showing contrivances used for these purposes, and illustrative of the principles involved.
- 3. Water.—Showing conditions connected with pollution of water supplies, whether derived from the surface or underground sources; methods of purification on large and small scales; water pipes, etc., and the influence which these fittings may exert upon the water contained therein.
- 4. Soils and Buildings.—Building sites, various kinds of soils; relation between soil and dampness; permeability of soils to gases and water; composition of soils; effects of ground moisture on dwellings; measures to be taken against dampness and foul air; and building materials of all kinds.
- 5. Air.—Including ventilation schemes and appliances; climate and meteorology, with apparatus illustrative of each class.
- 6. Foodstuffs. Adulterations and sophistications practised; samples of unsound foodstuffs.

- 7. Bacteriological and Pathological. Specimens of diseased meats; specimens and slides of all the common micro-organisms, pathogenic and non-pathogenic.
- 8. Clothing.—Specimens of all the materials utilized for the manufacture of clothing, showing the raw state and the various processes through which they pass until the finished product is reached; the hygienic value of these various articles is also set forth.

Injuries and deformities which may directly result from the use of badly designed articles of clothing; history and evolution of clothing.

9. Drainage and Refuse Disposal.—This section includes every type of appliances used as sanitary fixtures in buildings; drainage schemes; ultimate disposal of refuse both liquid and solid,—refuse destructors, and sewage disposal plants. The section also includes types of faulty methods and appliances which on principle ought to be avoided.

In addition to the regular museum exhibit, there is a collection of over 1,000 lantern slides illustrative of phases of hygiene. The slides have been so arranged as to be available for demonstrations as hand specimens.

A catalogue with text and full description of all the exhibits contained in the museum is issued by the University authorities, and may be purchased at the general office.

## PATHOLOGICAL MUSEUM.

DIRECTOR:—PROFESSOR HORST OERTEL.
CURATOR:—MAUDE E. ABBOTT, B.A., M.D.
ASSISTANT CURATORS:—

{ H. N. SEGALL, M.D.
W. W. BEATTIE, M.D.
OSTEOLOGIST AND PREPARATOR:—E. L. JUDAH.

The Pathological Museum of the University consists to date (March 1, 1921) of 7,014 specimens, of which over 3,000 are mounted and catalogued specimens on the Museum shelves, and the balance are in a carefully labelled and classified storage, where they are readily available for teaching, and from which they are constantly being drawn and added to the display collection on the shelves of the Museum proper. A descriptive catalogue is in process of preparation, the first part of which has already been published by the Oxford Press. Other parts are available and are being made ready for print through the help of the Osler Catalogue and Cooper Funds.

The Museum also contains the pathological collection of the Royal Victoria Hospital, consisting of some 240 specimens mounted in colours and catalogued. There is also a small teaching collection of some 200 mounted specimens in the Museum of the Pathological Depart-

ment of the Montreal General Hospital. An extensive set of microscopic slides and charts for pathological and clinical teaching is also available from the Pathological Departments of the Royal Victoria and the Montreal General Hospitals, and in the Museum.

#### THE PETER REDPATH MUSEUM.

# HONORARY CURATOR:—PROF. ARTHUR WILLEY. CURATOR:—E. ARDLEY.

The large and valuable collections in botany, zoology, mineralogy and geology are arranged in such a manner as to facilitate the work in these departments.

The general arrangement is as follows:-

- 1. The botanical room on the ground floor contains the herbarium, consisting of 50,000 specimens of Canadian and exotic plants and collections illustrating structural and economic botany.
- 2. In the corridor on the ground floor is exhibited the Todd Ethnographical Collection from West Africa.
- 3. The Lyman entomological room is also situated on the ground floor. Mr. A. F. Winn is the entomological curator under the Lyman Bequest.
- 4. On the first floor is a room over the entrance hall, in which are cases containing archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from West Africa.
- 5. This room opens into the great museum hall, on each side of which are alcoves with upright and table cases containing the collection in palæontology arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.
- 6. At the extreme end of the hall are placed the collections of minerals and rocks, arranged in such a manner as to facilitate their systematic study. In the centre of the hall are economic collections and large casts and models.
- 7. In the upper story or gallery of the great hall are placed the zoological collections; the invertebrate animals in table cases in regular series, beginning with the lower forms; the vertebrate animals in upright cases, in similar order. The Philip Carpenter Collection of shells is especially noteworthy for its arrangement and completeness.

Papers and memoirs relating to certain type specimens in the collections can be obtained from the Assistant Curator. Classes of pupils from schools can be admitted on certain days under regulations which may be learned from the professors or from the Registrar of the University.

#### THE MCCORD NATIONAL MUSEUM.

This Museum is located in the old Joseph House, at the corner of Sherbrooke and McTavish Streets. The collection is a gift to the University from Mr. David Ross McCord of Temple Grove, a graduate in Arts of 1863, and in Law of 1867. The range of the collection is most extensive, comprising, as it does, mementoes of the great statesmen, warriors, writers, and spiritual leaders among the two principal races which are now represented in Canada, as well as of the great explorers of every part of the North American continent. The Arctic souvenirs are especially numerous and important, and in the department of Wolfiana, the Museum is probably unrivalled.

One of the most important departments is that treating of the North American Indian, the section relating to the Indians of the Eastern half of the continent being especially complete. Here are to be seen the arms and personal relics of Tecumseh and Brant, and most wonderful specimens of wampum and Indian silver. The great series of paintings illustrative of the campaigns and archæology of Canada are not only accurate, but artistic. There are separate departments for china, glass and historical furniture as well as one for the cradle industries of Canada. There is a special room for relics of the Founder of the University, and of its first great Principal, Sir Wm. Dawson, with his distinguished colleagues in Science at the time, Sir William Logan and Dr. Sterry Hunt.

A special aim of the Museum is to form a school of useful and ornamental art, based on types of native Indian industry, such as the manufacture of wall papers, works in metals of all kinds, and ceramic work, in the motifs for which the Museum is especially rich.

#### WORKSHOPS.

The workshops, erected on the Thomas Workman Endowment, have a floor area of more than 20,000 square feet.

Equipment.—The carpenter shop and the pattern shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-maker's lathe for faceplate work, one circular-saw bench, a jig-saw, a band-saw, two wood-trimmers, a surface-planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The smith shop is provided with twenty Sturtevant forges, which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing.

The foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilities for undertaking iron foundry work in green and dry sand, and for brass moulding. The stop is served by a hand travelling crane of one-ton capacity.

The machine shop has twelve 18-inch engine lathes, one 18-inch turret lathe fitted for stud and screw making, one 27 inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing headstock, one planer capable of taking work up to 24 x 24 in. x 5 ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder, and an inch vertical drilling machine with compound table, one universal buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The toolroom contains a full equipment of drills, reamers, milling cutters, and accessories, gauges, calipers, and other measuring instruments.

All the machinery in the workshops is driven electrically by motors taking power from the generating station in the Macdonald Building.

# REGISTER OF STUDENTS

session 1920-1921

## FACULTY OF ARTS

## FIRST YEAR

(McGill College)

Name	SCHOOL EAST ATTENDED HOME ADDRESS
Aikman, Cecil Howard	
Alexander, Edward Ryckman	Westmount High School 334 Harvard Ave., Montreal, Que.
Ayer, Lawrence Ellerton Batshaw, Harry	Ayer's Cliff AcademyAyer's Cliff, Que. Montreal High School61 Parthenais, St. Montreal, Que.
Bavitch, Benjamin	. Montreal High School 1218 Clarke St., Montreal, Que.
Berlind, Samuel	. Montreal High School 3 Laval Ave., Montreal, Que.
Bernstein, Philip A	. Montreal High School 5 Tara Hall Ave., Montreal, Que.
Bethel, John Perceval	Oueen's College, Nassau, 31 Market St., Nassau,
Blumenstein, Jack Harold	Bahamas
Blundell, Stanley Frederic	Montreal High School P.O. Box 212, Station B., Montreal, Que.
Boyes, Watson	
Branch, Campbell William	. Antigua Grammar School. St. Mary's St., St. John, Antigua.
*Brown, Wilbert	Mt. Allison AcademyWesleyan College, Montreal, O. e.
Brownstein, Charles	. Montreal High School
Burrows Norman Andrew	. Kelvin Technical School Winnipeg, Man Edmonton, Alta. King's Collegiate School 804b Dorchester St.
Charness, Isidore	Windsor, N.S Montreal, QueMontreal High School Montreal Ave., Montreal Oue.
Chave, Bertram William	Harrison College, The Crotons, Barbados. Belleville, B.W.I.
Cohen, Bernard	. Montreal High School 466 Wilson Ave., Montreal, Que.
Cohen, Harry Aaron	Montreal High School89 Dorchester St., Montreal, Que.
Conner, Gordon Myron	Sherbrooke High School. 52 Queen St., Sherbrooke, Que.

<sup>\*</sup>Partial.

Name	SCHOOL LAST ATTENDED HOM	ME AI DRESS
Cope, Francis Campbell	.Westmount High School . 460 W	ood Ave.,
Cunliffe, Guy Sedgwick	. Upper Canada College, 282 D	tmount, Que. e L'Epee Ave.,
Currant, Thomas	. Wesleyan College12 Ho Was	remont, Que. ome View, chington, Dur- n, Eng.
Dawson, John Edward	.Private Tuition184 M	ansfield St.,
	.Private Tuition823 U	
Eddy, Earl Bronson	Brantford Collegiate, 43 Da Brantford, Ont Bra	treal, Que. lhousie St.,
*Edelberg, Joshua Harry	.Private Tuition1032 S	St. Urbain St.,
Eliasoph, Samuel	. High School, Quebec 69 Ste	
*Emmett, Andrew*Forsyth, David Thomas	. Pointe-aux-Trembles School Od . Montreal High School 423 Fi	Quebec, Que. lanak, Que. rontenac St., ontreal, Que.
Fortune, Robert V	Sault High School, Sault Ste. Marie, Ont432 W	
	Saul Ont.	t Ste. Marie,
Foster, Richard	.Westmount High School . 472 St	rathcona Ave., tmouznt Que.
Fotos, John	Prince Rupert, H.S., Prince Rupert, B.C632 A	ylmer St.
*Gaukrodger, Clement †Gentle, Floyd Gardner Goodland, Joseph	Point .Huntingdon AcademyHunti .Diocesan Theological Col-	ingdon, Que.
	lege, Montreal, QueBonav . Montreal High School235 E.	splanade Ave.,
Gross, Philip Norcross	.Worcester Academy, Worcester, Mass65 Vic	etoria St.,
	. Cowansville Academy23 Hi	itreal, Que.
Hampson, Harold Ralph	.Ashbury College, Ottawa, Ont	ario Ave.,
Hatcher, William Sook Hough, Elswood Stanley (B.Sc. Course)	Bishop Field CollegeRose Trinity College School280 R	treal, Que. Blanche, Nfl <b>d.</b>
(Withdrew Jan. 30) Howe, Randolph Walter (B.Sc. Course)	.Westmount High School4525 St Wes	t. Catherine, St.;
Hudon, Valmore James J Hutton, Thomas G	.St. Patrick's Academy Richr .Theological Colleges 37 Ga	nond, Que. rland St.,
Jacobs, Reginald A	. Lower Canada College, Montreal, Que1014 I	Dorchester St., atreal, Que.
†Katz, Max	.Commercial and Technical High School25 Dre	
Kelloway, Warwick Freeman .	. Affiliated Theological Colleges	

<sup>\*</sup>Partial. †Double Course.

Lafleur, Gilbert Thomas. Lower Canada College. 314 Peol St., Montreal, Que. Layhew, John Howard. Stanstead College. Stanstead, Que. Lenan, S. Maurice A. Calcutta, India. Wesleyan College, Montreal, Que. Lloyd, Arthur Octavius. Affiliated Theological Colleges. Smith's Falls, Ont. *Livingstone, Duncan. Charlottetown Business College. Migh Bank, P.E.I. Harden. Williamstown H.S. Bainsville, Ont. McFarlane, Duncan Herbert. Regina College. Nokomis, Sask. McKeown, Hilton John. Kennore High School. Russell, Ont. McFarlane, Daniel Forbes. Hoseote Coaching Establishment. Montreal, Que. McLaren, Daniel Forbes. Hoseote Coaching Establishment. Montreal, Que. McLaren, Donald J. K. Morrisburg Collegiate Institute. 97 Ste. Foye Rd., Quebec, Que. McLaren, Donald J. K. Morrisburg Collegiate Institute. 97 Ste. Foye Rd., Quebec, Que. McLatchie, James Kennedy. Private Tution. 1538a Chabot St., Montreal, Que. MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R.R. No. 2. McRae, Clarence Reid. Lachine High School. 22-42nd Ave., Lachine, Que. Michlin, Jochiel. Bishop's College School. 15 Redpath Crescent, Montreal, Que. Michlin, Jochiel. Private Tutition. Montreal, Que. Michlin, Jochiel. Private Tutition. Montreal, Que. Michlin, Jochiel. Private Tutition. Montreal, Que. Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que. R.R. No. 4. Montreal, Que. Michlin, Joseph States. Montreal High School. 36 St. Lawrence Blvd, Montreal, Que. R.R. No. 4. Montreal, Que. Mishikin, Harris. Montreal High School. Montreal, Que. Mont	Name	SCHOOL LAST ATTENDED	Home Address
Layhew, John Howard. Leman, S. Maurice A. Letts, Harold.  *Letts, Harold.  *Letts, Harold.  *Letts, Harold.  *Letts, Harold.  *Loyd, Arthur Octavius.	Lafleur, Gilbert Thomas	.Lower Canada College31	4 Peel St., Montreal,
Lloyd, Arthur Octavius. Affiliated Theological Colleges. Smith's Falls, Ont.  *Livingstone, Duncan. Charlottetown Business College High Bank, P.E.I.  †McCuaig, Edmund Barton Williamstown H.S. Bainsville, Ont. McFarlane, Duncan Herbert. Regina College. Nokomis, Sask. McKenown, Hilton John. Kenmore High School. Russell, Ont.  *McLaren, Daniel Forbes. Hoscote Coaching Establishment. 399 McKay St., Montreal, Que.  McLaren, Donald J. K. Morrisburg Collegiate Institute. 97 Ste. Foye Rd., Quebec, Que.  McLetchie, James Kennedy Private Tution. 1538a Chabot St., Montreal, Que.  MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R.R. No. 2.  McRae, Clarence Reid. Lachine High School. 22-42nd Ave., Lachine, Que.  *Martineau, Eddie A. Affiliated Theological Colleges. Colleges. Colleges. Montreal, Que.  Michlin, Jochiel. Private Tuition. 28 Arcade St., Montreal, Que.  Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., R.R. No. 4.  Miller, David Bernard. Methodist College, St. John's N'fld. P.O. Box 547, St. John's N'fld. P.O. Box 547, St. John's N'fld. P.O. Box 547, St. John's, N'fld. P.O. Box 5	Lenan, S. Maurice A	Stanstead College S	tanstead, Que. alcutta, India. 'esleyan College,
McCuaig, Edmund Barton. Williamstown H.S. Bansville, Ont. McFarlane, Duncan Herbert. Regina College. Nokomis, Sask. McKeown, Hilton John. Kenmore High School. Russell, Ont. *McLaren, Daniel Forbes. Hoscote Coaching Establishment. 399 McKay St., Montreal, Que. McLaren, Donald J. K. Morrisburg Collegiate Institute. 97 Ste. Foye Rd., Quebec, Que. McLetchie, James Kennedy. Private Tution. 1538a Chabot St., Montreal, Que. MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R.R. No. 2. McRae, Clarence Reid. Lachine High School. 22-42nd Ave., Lachine, *Marler, George Leonard. Bishop's College School. 15 Redpath Crescent, Montreal, Que.  *Martineau, Eddie A. Affiliated Theological Colleges. Quyon, Que. Michlin, Jochiel. Private Tuition. 28 Arcade St., Montreal, Que. Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., Miller, David Bernard. Methodist College, St. John's N'fld. P.O. Box 547, St. John's N'fld. P.O. Box 547, St. John's N'fld. St. Lominique St., Montreal, Que.  *Mishikin, Harris. 146 Vendome Ave., Montreal, Que. Monaker, Jacob. Montreal High School. 27 Esplanade Ave., Montreal, Que. Monaker, Jacob. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 91 Red Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Que. Ross, Allan Evans. Westmount High School. 31 Bruce Ave., Westmount, Que. Ross, Allan Evans. Westmount High School. 91 Red Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmoun	Lloyd, Arthur Octavius	Affiliated Theological Col-	, •
McCuaig, Edmund Barton. Williamstown H.S. Bansville, Ont. McFarlane, Duncan Herbert. Regina College. Nokomis, Sask. McKeown, Hilton John. Kenmore High School. Russell, Ont. *McLaren, Daniel Forbes. Hoscote Coaching Establishment. 399 McKay St., Montreal, Que. McLaren, Donald J. K. Morrisburg Collegiate Institute. 97 Ste. Foye Rd., Quebec, Que. McLetchie, James Kennedy. Private Tution. 1538a Chabot St., Montreal, Que. MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R.R. No. 2. McRae, Clarence Reid. Lachine High School. 22-42nd Ave., Lachine, *Marler, George Leonard. Bishop's College School. 15 Redpath Crescent, Montreal, Que.  *Martineau, Eddie A. Affiliated Theological Colleges. Quyon, Que. Michlin, Jochiel. Private Tuition. 28 Arcade St., Montreal, Que. Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., Miller, David Bernard. Methodist College, St. John's N'fld. P.O. Box 547, St. John's N'fld. P.O. Box 547, St. John's N'fld. St. Lominique St., Montreal, Que.  *Mishikin, Harris. 146 Vendome Ave., Montreal, Que. Monaker, Jacob. Montreal High School. 27 Esplanade Ave., Montreal, Que. Monaker, Jacob. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Rezevsky, Moses. Montreal High School. 91 Red Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Que. Ross, Allan Evans. Westmount High School. 31 Bruce Ave., Westmount, Que. Ross, Allan Evans. Westmount High School. 91 Red Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmount, Red. Westmoun	*Livingstone, Duncan	. Charlottetown Business	inth s rans, Ont.
McLaren, Donald J. K. Morrisburg Collegiate Institute	McGuaig, Edmund Barton McFarlane, Duncan Herbert McKeown, Hilton John	. Williamstown H.S	ainsville, Ont. okomis, Sask. ussell, Ont. 9 McKay St.,
Institute. 97 Stet. Foye Rd., Quebec, Que.  McLetchie, James Kennedy Private Tution 1538a Chabot St., Montreal, Que.  MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R. R. No. 2.  McRae, Clarence Reid Lachine High School 22-42nd Ave., Lachine, Que.  *Marler, George Leonard Bishop's College School 15 Redpath Crescent, Montreal, Que.  *Martineau, Eddie A Affiliated Theological Colleges Quyon, Que.  Mendelovitch, Manuel Arthur. Montreal High School 636 St. Lawrence Blvd, Montreal, Que.  Michlin, Jochiel Private Tuition 28 Arcade St., Montreal, Que.  Middlemiss, Edwin Albert Cookshire Academy Sawyerville, Que., R. R. No. 4.  Miller, David Bernard Methodist College, St. John's N'fld So. 547, St. John's, Nfld.  *Miller, Joseph States Montreal High School 55 St. Dominique St., Montreal, Que.  Monaker, Jacob Montreal High School 27 Esplanade Ave., Montreal, Que.  Monaker, Jacob Montreal High School 27 Esplanade Ave., Montreal, Que.  Mouland, Ernest William Montreal, Que.  Rezevsky, Moses Montreal High School 90 Vinet St., Montreal, Que.  Robertson, William Lewis Ottawa Collegiate 118 Gilmour St., Ottawa, Ont.  Rosen, Leo	McLaren, Donald J. K	Morrishurg Collegiate	, •
McLetchie, James Kennedy. Private Tution. 1538a Chabot St., Montreal, Que.  MacMillan, Hugh D. Vankleek Hill Collegiate. Dalkeith, Ont., R.R. No. 2.  McRae, Clarence Reid. Lachine High School. 22-42nd Ave., Lachine, Que.  *Marler, George Leonard. Bishop's College School. 15 Redpath Crescent, Montreal, Que.  *Martineau, Eddie A. Affiliated Theological Colleges. Quyon, Que.  Mendelovitch, Manuel Arthur. Montreal High School. 636 St. Lawrence Blvd, Montreal, Que.  Michlin, Jochiel. Private Tuition. 28 Arcade St., Montreal, Que.  Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., R.R. No. 4.  Miller, David Bernard. Methodist College, St. John's N'fld. Don's N'fld. John's, Nfld.  *Miller, Joseph States. Montreal High School. 55 St. Dominique St., Montreal, Que.  *Mishikin, Harris. 146 Vendome Ave., Montreal, Que.  Monaker, Jacob. Montreal High School. 27 Esplanade Ave., Montreal, Que.  Monaker, Jacob. Montreal High School. 27 Esplanade Ave., Montreal, Que.  Mouland, Ernest William. Montreal High School. 90 Vinet St., Montreal, Que.  Rosen, Leo. Montreal High School. 31 Bruce Ave., Que.  Rosen, Leo. 819 Cote St. Antoine Rd., Westmount, Que.  Ross, Allan Evans. Westmount High School 31 Bruce Ave., Westmount, Que.  Ros, Robert John Harrison. Strathcona Academy. Roskilde Ave., Outremont, Que.  Sanderson, Mathew Telford. Feller Institute. 81 Rozel St.,		Institute 97	Ouebec Oue
MacMillan, Hugh D	McLetchie, James Kennedy	.Private Tution15	38a Chabot St.,
McRae, Clarence Reid	MacMillan, Hugh D	. Vankleek Hill Collegiate D	alkeith, Ont., R.R.
*Marler, George Leonard	McRae, Clarence Reid	Lachine High School 22	-42nd Ave., Lachine,
*Martineau, Eddie A	*Marler, George Leonard	.Bishop's College School15	Redpath Crescent,
Mendelovitch, Manuel Arthur. Montreal High School.  Michlin, Jochiel.  Private Tuition.  Saverade St.,  Montreal, Que.  Sawyerville, Que.,  R.R. No. 4.  Miller, David Bernard.  Methodist College, St.  John's N'fld.  P.O. Box 547, St.  John's, N'fld.  Montreal, Que.  R.R. No. 4.  Miller, Joseph States.  Montreal High School.  Montreal, Que.  Monaker, Jacob.  Montreal High School.  Montreal High School.  Montreal, Que.  Monaker, Jacob.  Montreal High School.  Montreal, Que.  Montreal, Que.  Montreal, Que.  Montreal, Que.  Montreal, Que.  Montreal High School.  Montreal, Que.  Montreal, Que.  Montreal, Que.  Montreal, Que.  Montreal High School.  Montreal, Que.  Mo	*Martineau, Eddie A	. Affiliated Theological	
Michlin, Jochiel. Private Tuition. 28 Arcade St., Montreal, Que.  Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., R.R. No. 4.  Miller, David Bernard. Methodist College, St. John's N'fld. P.O. Box 547, St. John's, N'fld.  *Miller, Joseph States. Montreal High School. 55 St. Dominique St., Montreal, Que.  *Mishikin, Harris. 146 Vendome Ave., Montreal, Que.  Monaker, Jacob. Montreal High School. 27 Esplanade Ave., Montreal, Que.  Mouland, Ernest William. Musgrove Harbour, N'fld.  Rezevsky, Moses. Montreal High School. 90 Vinet St., Montreal, Que.  Robertson, William Lewis. Ottawa Collegiate. 118 Gilmour St., Ottawa, Ont.  Rosen, Leo. 1819 Cote St. Antoine (Withdrew Jan. 24) Rd., Westmount, Que.  Ross, Allan Evans. Westmount High School. 31 Bruce Ave., Westmount, Que.  Roy, Robert John Harrison 55 Ave. du Bois de Boulogne, Paris, France.  St. John, Burton Marvin. Strathcona Academy. Roskilde Ave., Outræmont, Que.  Sanderson, Mathew Telford. Feller Institute. 81 Rozel St.,	Mendelovitch, Manuel Arthur.	. Montreal High School 63	6 St. Lawrence Blvd,
Middlemiss, Edwin Albert. Cookshire Academy. Sawyerville, Que., R.R. No. 4.  Miller, David Bernard. Methodist College, St. John's N'fld. P.O. Box 547, St. John's N'fld. 55 St. Dominique St., Montreal, Que.  *Miller, Joseph States. Montreal High School 55 St. Dominique St., Montreal, Que.  *Mishikin, Harris. 146 Vendome Ave., Montreal, Que.  Monaker, Jacob. Montreal High School 27 Esplanade Ave., Montreal, Que.  Mouland, Ernest William. Musgrove Harbour, Nfld.  Rezevsky, Moses. Montreal High School 90 Vinet St., Montreal, Que.  Robertson, William Lewis. Ottawa Collegiate. 118 Gilmour St., Ottawa, Ont. Rosen, Leo. 819 Cote St. Antoine (Withdrew Jan. 24) Rd., Westmount, Que.  Ross, Allan Evans. Westmount High School 31 Bruce Ave., (B.Sc. Course)  Roy, Robert John Harrison 55 Ave. du Bois de Boulogne, Paris, France.  St. John, Burton Marvin Strathcona Academy. Roskilde Ave., Outræmont, Que.  Sanderson, Mathew Telford. Feller Institute. 81 Rozel St.,	Michlin, Jochiel	.Private Tuition28	Arcade Ŝt.,
Miller, David Bernard.  John's N'fld.  *Miller, Joseph States.  *Mishikin, Harris.  Montreal High School.  *Monker, Jacob.  Montreal High School.  *Montreal, Que.  *Monaker, Jacob.  Montreal High School.  Montreal, Que.  *Montreal, Que.  *Montreal, Que.  Montreal, Que.  *Montreal, Que.  Montreal, Que.  Mosgrove Harbour,  Nfld.  Rezevsky, Moses.  Montreal High School.  90 Vinet St., Montreal,  Que.  Robertson, William Lewis.  Ottawa Collegiate.  118 Gilmour St.,  Ottawa, Ont.  Rosen, Leo.  (Withdrew Jan. 24)  Ross, Allan Evans.  Westmount High School.  11 Bruce Ave.,  Westmount, Que.  Ross, Allan Evans.  Westmount High School.  11 Bruce Ave.,  Westmount, Que.  St. John, Burton Marvin.  Strathcona Academy.  Roskilde Ave.,  Outræmont, Que.  Sanderson, Mathew Telford.  Feller Institute.  81 Rozel St.,	Middlemiss, Edwin Albert	. Cookshire AcademySt	awyerville, Que.,
*Miller, Joseph States	Miller, David Bernard	.Methodist College, St. John's N'fldP	.O. Box 547, St.
*Mishikin, Harris	*Miller, Joseph States	. Montreal High School 55	St. Dominique St.,
Monaker, Jacob. Montreal High School 27 Esplanade Ave., (B.Sc. Course) Montreal, Que.  Mouland, Ernest William Musgrove Harbour, Nfld.  Rezevsky, Moses Montreal High School 90 Vinet St., Montreal, Que.  Robertson, William Lewis Ottawa Collegiate 118 Gilmour St., (B.Sc. Course) Ottawa, Ont. Rosen, Leo 819 Cote St. Antoine (Withdrew Jan. 24) Rd., Westmount, Que.  Ross, Allan Evans Westmount High School 31 Bruce Ave., (B.Sc. Course) Westmount High School 31 Bruce Ave., (B.Sc. Course) St. John, Burton Marvin Strathcona Academy Roskilde Ave., Outramont, Que.  Sanderson, Mathew Telford Feller Institute 181 Rozel St.,	*Mishikin, Harris		6 Vendome Ave.,
Rezevsky, Moses. Montreal High School 90 Vinet St., Montreal, Que.  Robertson, William Lewis. Ottawa Collegiate. 118 Gilmour St., Ottawa, Ont. Rosen, Leo. 819 Cote St. Antoine (Withdrew Jan. 24) Rd., Westmount, Que. Ross, Allan Evans. Westmount High School 31 Bruce Ave., (B.Sc. Course) Westmount, Que. Roy, Robert John Harrison 55 Ave. du Bois de Boulogne, Paris, France. St. John, Burton Marvin Strathcona Academy Roskilde Ave., Outræmont, Que. Sanderson, Mathew Telford Feller Institute 81 Rozel St.,	(B.Sc. Course)	. Montreal High School27	7 Esplanade Ave., Montreal. Que.
Robertson, William Lewis. Ottawa Collegiate. 118 Gilmour St.,  (B.Sc. Course) Ottawa, Ont.  Rosen, Leo. 819 Cote St. Antoine  (Withdrew Jan. 24) Rd., Westmount,  Que.  Ross, Allan Evans. Westmount High School 31 Bruce Ave.,  (B.Sc. Course) Westmount, Que.  Roy, Robert John Harrison 55 Ave. du Bois de  Boulogne, Paris,  France.  St. John, Burton Marvin Strathcona Academy Roskilde Ave.,  Outræmont, Que.  Sanderson, Mathew Telford Feller Institute. 81 Rozel St.,			Nfld.
(B.Sc. Course)  Rosen, Leo	• '		Oue.
Ross, Allan Evans	(B.Sc. Course) Rosen, Leo	81	Ottawa, Ont. 9 Cote St. Antoine Rd., Westmount,
St. John, Burton Marvin Strathcona Academy Roskilde Ave., Outramont, Que. Sanderson, Mathew Telford Feller Institute 81 Rozel St.,	Ross, Allan Evans	58	Bruce Ave., Westmount, Que. 5 Ave. du Bois de Boulogne, Paris,
Sanderson, Mathew TelfordFəller Institute81 Rozel St.,	St. John, Burton Marvin	.Strathcona AcademyF	loskilde Ave.,
	Sanderson, Mathew Telford	.Feller Institute8	Rozel St.,

<sup>\*</sup>Partial. †Double Course.

NAME	SCHOOL LAST ATTENDED	Home Address
Scharf, Joss Evan	. Presbyterian College 432:	2 St. Catherine St. Iontreal, Que.
Sessenwein, Lawrenco	. Montreal High School 7 S	
Sewell, Robert Charles Hope.	.Quebec High School26 S	St. Ursule St.,
Silverstone, Henry Leo	. Montreal High School 640	
Simpson, Robert Geoffrey	.Private Tuition355	
Skarbek, Count Adam (Withdrew Jan. 25)	. Hoscote Coaching Establishment44 F	estmount, Que. Bishop St.,
Steine, Lionel	Bishop's College School Lal Montreal High School 819 M Ottawa Collegiate 18 S	University St., fontreal, Que. Selby St.,
Teakle, Cecil Thomas	. Wykeham House, Westmount, Que4065	ontreal, Que.  B Dorchester St.,
Tombs, Lawrence Chalmers	.Westmount High School503	ve., Westmount,
(B.Sc. Course)	Wykeham House324 M .Montreal High School1113	lontreal, Que. St. Dominique, St.
Webster, Colin Wesley	Lower Canada College7 E	
West, Alfred Melrose	St. Lambert High School.674	
†Wevrick, Nathan	.Private Tuition489a	
Wevrick, Solomon	.Private Tuition489a	
Wilkinson, George	. Cowansville AcademyKno . Methodist College, St.	, -
Wylie, Robert Harold	John'sGra .Affiliated Theological Col- legesHal	llville Ont
()	Royal Victoria College)	ivine, one.
,	Trafalgar Institute448-	4 Western Ave
Atkinson, Doris Evelyn	.St. Francis College, H. S Mel .Montreal High School 5 T.	estmount, Que. bourne, Que. ara Hill Ave.,
Basken, Barbara Eileen Carso	n	Iontreal, Que. Somerset St., ettawa, Ont.
Bishop, Mary Elizabeth	.Trafalgar Institute454	
Bissett, Alice M	.Trafalgar Institute314	
*Brooke, Minette	. Montreal High School . 1397a S	
Brooks, Margaret	Trafalgar Institute402	
Brown, Marguerite C †Cameron, Margaret Burns le	Ayer's Cliff AcademyAye Westmount High School. 384	er's Cliff, Que.

<sup>\*</sup>Partial. †Double Course.

Name	SCHOOL LAST ATTENDED	Home Address
†Campbell, Jean Isabel	St. Joseph's High Schoolc	o Nova Scotia Steel & Coal Co., Sydney, N.S.
†Clarke, Jessie		2259 Chateaubriand St., Montreal, Que.
Cohen, Shirley Mildred	Lanark Continuation	Conords Ont
Cowan, Adelaide C		Montreal, Que.
Coyle, Mabel Elliott		65 Chesterfield Ave., Westmount, Que.
*Crawford, Jean		Nfld.
Creelman, Alice Bernie Crossley, Emily Helen	Georgetown High School. Three Rivers Academy	Georgetown, Ont.
Dawson, Katherine H	.Westmount High School	21 Bellevue Ave., Westmount, Que.
Dorken, Edna	.Trafalgar Institute	621 Carleton Ave., Westmount, Que.
Duval, Irene B		Davaar Ave., Montreal Que
*Eakin, Vera Gwendolyn		Westmount, Que.
Elliott, Margaret Scott		Westmount, Que.
		Westmount, Que.
Feilders, Mary Gwendolyn		Westmount, Que.
Fergusson, Ruth May		Westmount, One.
Fotos, Helen	. Prince Rupert High School	632 Aylmer St., Montreal, Que.
*Frey, Beatrice Louise	. Montelair High School	27 Hillside Ave., Montelair, N.J.
*Gardner, Helen M	.Montreal High School	108 St. Matthew St., Montreal, Que.
Gilday, Lois	.Westmount High School	59 Bruce Ave., Westmount, Que.
Glasberg, Clara	. Montreal High School	5 Deacon Rd.,
*Gnaedinger, Elaine	. Miss Edgar's School	Outremont, Que. 276 Pine Ave. W.,
*Goldblatt, Mary	.Montreal High School	Montreal, Que. 841 Cadieux St
Graham, Muriel Jean Grant, Elizabeth Rhoda	.Lachute Academy	Montreal, Que. Arundel, Que. Box 454, Glace Bay, N.S.
Haight, Constance Vercoe		49 Portland Ave.,
(B.Sc. Course) †Hawker, Kathleen Lovedy (B.Sc. Course) *Heillig, Evelya	.West Hill High School .Montreal High School	6 Campbell Ave., Montreal West, Que. 4639 Westmount Ave.,
*Herzberg, Alice Maude		Westmount, Que. 348 Kensington Ave.,
Herzberg, Emmy Lou	.Westmount High School	Westmount, Que. 348 Kensington Ave.,
Higginson, Isabella Fernie Jackson, Alma, T.	Buckingham H. S . Westmount High School.	.10 Brooke St.,West-
		mount, Que.

<sup>\*</sup>Partial. †Double Course.

Name	SCHOOL LAST ATTENDED	Home Address
Jacobs, LeahJohnson, Gwendolyn Gladys.	Cornwall High School Commercial and Technical High School	1705 St. Urbain St.,
Johnson, Florence		Montreal, Que. 221 Mance St., Montreal, Que.
Klaehn, Hynda Hermine A	Stratford Collegiate Institute	66 Centre St.,
Klaehn, Irmgard A. G	Stratford Collegiate Institute	
Klineberg, Queenie	Belmont School	Stratford, Ont. 917 St. Denis St., Montreal, Que.
Lamb, Audrey Wakefield	Trafalgar Institute	Montreal, Que. 455 McKay St., Montreal, Que.
*McArthur, Elizabeth	. The Study, Montreal, Que.	Montreal, Que.  Montreal, Que.
McConnel, Dorothea	Westmount High School	336 Grosvenor Ave., Westmount, Que.
McLaren, Mary Barbara S	-	1 Ravenscliffe Ave., Hamilton, Ont.
McLellan, Annie Mildred	_	189 Villeneuve St., Montreal, Que.
MacMillan, Marianne Verity	Ottawa Collegiate Institute	123 Ballantyne Ave.,
McNaughton, Muriel C	Westmount High School	Montreal, Que. 4565 Sherbrooke St., Westmount, Que.
McRae, Ruth	Westmount High School	
McWatters, Marjorie	0.0	
Mantel, Sophie	Ste. Agathe Des Monts Model School	Ste. Agathe Des Monts, Que.
*Marshall, Jean Ethelwynne	Westmount High School	
Massey-Bayly, Flizabeth	_	2282 Hutchison St., Outremont, Que.
Matheson, Jean Isabel	Church of England School, Ottawa	
Mathewson, Faith		
Morton, Christina M	Montreal High School	Montreal, Que. 1172 Cote St. Antoine Rd., Montreal,
Moule, Harriet Edna	Macdonald High School	Que. 326 Brock Ave.,
Murray, Phyllis Marjorie	Quebec High School	
Nieghorn, Marjorie	Havergal College	Quebcc, Que. c'o Nichols Chem. Co., 222 St. James St., Montreal, Que.
Pennington, Marjorie Jessie	Quebec High School	53 St. Cyrille St.,
Petric, Edith	. Quebec High School	Quebee, Que. 18 d'Aiguillon St., Quebee, Que.
Pidgeon, Nettie Amanda	St. John High School	
*Rabinovitch, Reta Sylvia	Montreal High School	

<sup>\*</sup>Partial.

Name	School Last Attended	Home Address
*Ratner, Minnie	.Commercial and Technical High School	. 106 Marlowe Ave., Montreal, Que.
Reid, Margaret Anne	.Bishop Strachan School	. Homewood Cottage,
Robertson, Carol Edna	.Trafalgar Institute	Shediac Cape, N.B. 289 Prudhomme Ave., Montreal, Que.
Robins, Jeannie	.Westmount High School.	.314 Metcalfe Ave., Westmount, Que.
*Rosen, Florence		.810 Cote St. Antoine Rd., Westmount,
Ross, Dorothy Vernon	. King's Hall, Compton,	109 Crescent St
Rothschild, Genevieve		.434 Lansdowne Ave.,
Rountree, Syble Thorne	.Westmount High School.	Westmount, Que. .445 Mt. Stephen Ave.,
Russel, Eileen Disney	.Trafalgar Institute	Westmount, Que. .425 Mt. Pleasant Ave.,
Russell, Mary		Westmount, Que435 Mt. Pleasant,
Safford, Nellie Marguerite Sangster, Dorothy Maud	. Montreal High School	Westmount, Que. Sutton, Que.
Scovil, Leah Graham	.Westmount High School.	Sherbrooke, Que. .471 Grosvenor Ave.,
Segal, Nessie		Westmount, Que154 St. Famille St.,
*Shapiro, Evelyn	. Montreal High School	
Shapiro, Sophia(B.Sc. Course)		Montreal, Oue.
Silverman, Minnie Clarice		Quebec, Que.
*Smith, Elizabeth Alice	_	Westmount, Oue.
Thomson, Helena B		Westmount, Que.
Watt, Elsie Gowan	. Montreal High School	.Ste. Anne de Bellevue, Que.
	SECOND YEAR	
	(McGill College)	
Name	Street Address	CITY OR TOWN
Addleman, William Adney, Francis Glen (B.Sc. Co. Allan, Warde Baunton Amaron, Errol Calvin Anderson, Llewellyn K Badger, Roland Ashly. Ballantyne, Charles Trenholm *Barnes, Walter Bramwell Bernstein, Jacob Clarence (B.Sc. Course) Bishop, Gilbert	ourse) . 602-13th Ave. West 	Woodstock, N.B. Calgary, Alta. Naramata, B.C. Beauharnois, Que. Ayer's Cliff, Que. Montreal, Que. Moreton's Harb, Nfld. Montreal, Que.
(B.Sc. Course) †Bourgoin, Henri		
*Brault, Magloire Joseph	·	.Cranbrook, B.C.

<sup>\*</sup>Partial. †Double Course.

Name	Street Address	City or Town
Burke, Kenneth M		.Metis Beach, Que.
Burnett, James Frederic Calder, James Carswell *Caldwell, William Stev Cantley, Donald Fraser	ek J242 Westmount Boulevard wart737 Shuter St	Lachute, Que. .Montreal, Que. .New Glasgow, N.S.
Clark, Hugh Stuart	25 Rosemount Ave 102 Hopewell Ave	. Kincardine, Ont. . Westmount, Que. . Ottawa, Ont.
Craik, Galen Howe Crestohl, Max Nathan. †Davidson, Edward Lea Duval, Robert Herbert		Melbourne, Que. Montreal, Que. Upper Melbourne, Que. St. Johns, Que.
Edgecombe, Stanley Egerton, Norman	359 West Hill Ave 86 Milton St	. Montreal, Que.
Falconer, Keith Fensom, Kenneth Gord		. Westmount, Que. . Westmount, Que.
*Carolials Imping	ver 350 Mackay St on. 1874 Esplanade Ave ard 54 Chateaubriand Ave 2424 Chabot Ave.	Montreal, Que.
*Garneau, Henri	136 Grande Allee	. Quedec.
(B.Sc. Course)	841 Cadieux St	Billing's Bridge, Ont.
Holtham, Hubert F. R.	Hemel, Hempstead,	. Waterville, Que. Herts Eng.
(B.Sc. Course) Hutcheson, John Holder	1457 Clarke Ave	.Westmount, Que.
†Lacowitsky, Jeremiah.		. Montreal, Que.
Levinson, Leon †Lochead, John Richard Lummis, Oswald John.	e	.Westmount, Que. Vancouver, B.C. Valcourt, P.Q.
McFarlane, Duncan Her	bert	. Nokomis, Sask. Ormstown, Que.
*MacLean, Angus H McLean, Duart Vercoe.	mson24, Forty-first Ave	. Lachine, Que.
†McLeod, Neil *McMath, Robert Ridd	eli	
(D Course)	dolph12 Arnold Rd	

<sup>\*</sup>Partial. †Double Course.

	Name	Street Address	City or Town
]	Mendelssohn, Sam Leon (B.Sc. Course)	.157 Rachel St. E	. Montreal, Que.
ſ	Mettarlin, A. Hyman	556 Pino Avo W	Montreal Oue
	Moore, Allan Frederick Moore, Ernest Nelson Mossman, Donald Davis. (B.Sc. Course) Ogilvy, John Angus		
•	)wens. Keith Beaumont		Lachuta Ouc
1	Prudham, William Merrill Puddicombe, George Beverly Pye, Martin James	410 Queen St	. Drayton, Ont. Ottawa. Ont.
1	Pye, Martin James		. Windsor, Que.
ĺ	(B.Sc. Course) Radmore, ArthurRead, Stanley Merritt E	.37 Melbourne St	. Sherbrooke, Que.
5	ch wartzman, Jacob (B.Sc. Course)	.0akwood House	Maesteg, South Wales. Montreal, Que.
	Smith, Frederick McIver Smith, Jewitt Rice	.456 East 19th St	Brooklyn N.Y.
	Spector Jack	9.1 Lorrol Arro	Montreal Ore
5	Stenlake, Wilfrid D. Strange, Arnold. Caylor, John Alexander.	.10 La Salle Ave	. Montreal, Que.
	Hirred Inomas		St Johns Oue
v	Vadsworth, Gordon Campbell	.2036 Mance St	. Lacolle, Que. . Montreal. Oue.
V	Van Vliet, G. Lyman. Vadsworth, Gordon Campbell Valter, Felix Harold. Vells, Herbert Vhitemore, Ceeil H. mphrey. Villard, Eugene Wallace Vilson, William Hollister. Vilson, William Bobert	.635 University St	. Montreal, Que.
ÿ	Whitemore, Cecil H; mphrey	• • • • • • • • • • • • • • • • • • • •	Maxville, Ont.
4	Villard, Eugene Wallace Vilson, William Hollister	.144½ Cyrille St	.Quebec, Que. .Montreal. Que.
V	Vilson, William Robert Vinn, Albert Reginald (B.Sc. Course)	.32 Springfield Ave	. Athelstan, Que, . Westmount, Que.
V	Yoodhouse, Douglas Hamilton	.67 McTavish St	. Montreal, Que.
7	Zacher, Samuel	.76 Laval Ave	. Montreal, Que.
		SECOND YEAR	
		Royal Victoria College)	
Ŀ	dexander, Katherine Newell all, Carolyn Muir anfill, Florence Mahala eattie, Marion Tennant	538 Lansdowne Ave	Westmount One
C	eckwith, Grace Dean McLeo ameron, Elizabeth White	d1423 Fernwood Rd 62 Charlotte St	Victoria, B.C.
C	ampbell, Edith Dixon ampbell, Edith Margaret (B.Sc. Course)	.59 Columbia Ave .190 Bayswater Ave	.Westmount, Que. .Ottawa, Ont.
C	ampbell, Lauretteanning, Mary Kathleen (B.Sc. Course)	.109 Drummond St	Montreal, Que.
·	Clarke, Verna Maude ross, Dorothy Alexandra Obbie, Aggie Maud Oorken, Sylvia Hilda	4() ()uinn Ave	Longueuil One
۳.	Oorken, Sylvia Hilda Eakin, Vera Gvans, Annie Lorene	.572 Roslyn Ave	Westmount, Que.
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<sup>\*</sup>Partial. †Double Course.

		. m
Name	Street Address	CITY OR TOWN
Evans, Katherine Jeanne. Fair, Louisa Margaret. Fitch, Esther. Foster, Joan Mary Vassie. Fraser, Clarice Barbara. Freedman, Celia. *Friedman, Liv. Gillues, Helen Mackechnie. Gittleson, Gertrude Freda. Grigg, Mildred McIntire. Hart, Ellen. †Hodge, Dorothy Evelyn. (B.Sc. Course)	207 Mansfield St. 146 Lockwell Ave. 136 Cobourg St. 1330 Lajoie Ave. 1366 Kensington Ave. 162 Villeneuve W. 1633 Sherbrooke St. 205 Mance St. 72 Le Marchant Rd. 631 Roslyn Ave.	Montreal, Que. Quebec, Que. St. John, N.B. Montreal, Que. Westmount, Que. Montreal, Que. Westmount, Que. Montreal, Que. St. John's, Nfld. Westmount, Oue.
James, Norah Gertrude	4474 St. Catherine St 256 Mountain St 1357 St. Urbain St .£26 Belmont Ave	. Westmount, Que Montreal, Que Montreal, Que Westmount, Que.
Kydd, Mary Winnifred Laidlaw, Agnes Nancy White-		
hill	179 Delgrave Ave	M ontreal, Que. Lach ute, Que.
Leggatt, Marjorie Marie	257 Sherbrooke St. W., Apt. 2	Montreal, Que.
(B.Sc. Course) †Liffiton, Deris Irving	-	
(B Sc Course)		
McConnel, Dorothea Amelia.  McConnel, Marjorie	235 Clarke Ave 235 Clarke Ave	. Westmount, Que.
(B.Sc. Course) McEwen, Gladys Mary Elizabe *Maclean, Sarah Jean Eilleen McLellan, Annic Mildred McPhail, Mary Archibald *Matts, Florence Violet	th	. Maxville, Ont. . Montreal, Que. . Montreal, Que. . Montreal, Que.
(Left Dec. 21) Medbury, Dorothy Durfee †Millen, Laura Isobel Mitchell, Janet I	.418 Wood Ave	. Westmount, Que.
(B.Sc. Course) Palmer, Edna May Paxton, Dorothy Helen	.4854 St. Catherine St	.Sherbrooke, Que. .Westmount, Que.
(B.Sc. Course) Perry, Millicent Audrey Pick, Marjorie Reyner, Jean	.793 Shuter St	. Montreal, Que. Montreal, Que.
(B.H.S. Course). Rooke, Daphne Frances †Rudolf, (Mrs.) Laura Mary	.268 St. Luke St	Montreal, Que. Kingston, N.S.
(Left Dec. 11, 1920) Roy, Alice Rosslyn. Russell, Dorothy Margaret Shirriff, Lillian Clementine W. Shlakman, Leanora. Slack, Zerada. Stewart, Audrey Elizabeth Teed, Dorothy Isobel *Wayland, Esther Weibel, Louise E Wighton, Lucy Jean Elizabeth.	.61 Norwood Ave	Ahuntsic, Que. Westmount, Que. Huntingdon, Que. Montreal, Que. Westmount, Que. Glenelm, Que. St. John, N.B. Montreal, Que. Montreal, Que.

### Street Address

CITY OR TOWN

#### THIRD YEAR

### (McGill College)

Addy, Paul Herbert	
Armstrong, Paul Frederic	Royton Pond Oue
Cousens, Henry Davis, Charles Freeman	Freshwater, Nfld. .Westmount, Que.
Franklin, Michael W. 2160 Waverly St	. Montreal, Que. . Montreal, Que. . Montreal, Que
Hall, Robert.  Harris, Richard C. †Hershon, Henry	. Montreal, Que.
†Higinbotham, Norman Lindsay.620-12th St. South  Johnson, Andrew Stuart  *Johnston, Charles Franklin258 Old Orchard Ave	. Inettord Mines West,
*Johnston, Charles Franklin28 Old Orchard Ave †Kanigsberg, Jacob Clarence430 Strathcona Ave )B.Sc. Course) †Kennedy, William Roland433 Mance St	. Westmount, Que.
Kerr, Thomas McLean1280 Joseph St	Verdun, Que.
Lefsrud, Sigurd	
*McCutcheon, Miles F772 Shuter St	. Montreal, Que. Aylmer, Que.
†McKinnon, James Donald.  *McKnight, Hilton Dalyell.  *McVittie, Thomas Johnstone M. A	Fredericton, N.B.
*Macklaier, William F. 851 Lorne Crescent	Montreal, Que. Montreal, Que. Aver's Cliff, Que.
Murray, Sidney Grosvenor 234 Douglas Ave O'Hagan, Howard 1275 Pleasant Ave	. Victoria, B.C. . Montreal, Que.
Patterson, Arthur Linden  (B.Sc. Course) Peterson, Frederick Olaf	. Montreal, Que. . Ouebec, Que.
Pierce, Sydney D	Westmount, Que. Montreal, Que. Sault Ste. Marie, Ont.
Roy, Archibald Edgar Carlyle. 1050 Mount Royal Ave. (Withdrew Jan. 27, 1921)	Outremont. Que.
*Savage, Charles Helly School St. S3 Rivard St. (B.Sc. Course)	Intolletear, Que.

<sup>\*</sup>Partial.

Name	Street Address	CITY OR TOWN
*Shane, Samuel J	226 St. Martin St 819 University St	Montreal, Que. Montreal, Que.
*Trask, Moses Turrell, Thos Webster, Gordon M *Wiseman, Solomon White, Harold †Wolepor, Benjamin	478 Roslyn Ave	St. Johns, Que. Westmount, Que. Montreal, Que. Shipley Yorks Eng.
(B.Sc. Course) †Zuckerman, Joshua(B.Sc. Course)	135 Rachel St. E	Montreal, Que.
	THIRD YEAR	
(Re	oyal Victoria College)	
*Ayer, Ruth Claxton.  *Aylen, Dorothea E  *Aylen, Lois.  *Aylner, Margaret Lydia. Banfill, Mary Evelyn Sarah. Birkett, Winifred Leighton. †Brown, Frances Trapp.  *Fleet, Jane Drummond. Foley, Violet Elizabeth. Fry, Mary Inez.  *Gillham, Doreen Miriam  Henderson, Jean Tasker. †Hibbard, Gladys Evadne (B.Sc. Course)  *Hoare, Brenda Mary. Holloway, Marjorie Howell, Muriel Jillard. Irwin, Chloris C (B.Sc. Course)  *Johnson, (Mrs.) Helen Margueri Joseph, Rose Klineberg, Adele Lucas, (Mrs.) Gail.  *McConnel, Marjorie †McDonald, Anita Cecilia	274 O'Connor St. 274 O'Connor St. 274 O'Connor St. 252 Bellevue Ave. 252 Mountain St. P.O. Box 168. 33 Ontario Ave. 29 Bellevue Ave. The New Drummond, Apt. 70. 575 Roslyn Ave. 460 Argyle Ave. 503 Argyle Ave. 212 Metcalfe Ave. 631 Victoria Ave. (te.30 Ontario Ave. 236 Elm Ave.	Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Westmount, Que. East Angus, Que. Montreal, Que. Kamloops, B.C. Montreal, Que. St. John, N.B. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que. Westmount, Que.
McGoun, Isabella Winifred McPartlin, Elizabeth Macrae, Dorothy MacRae, Shirley Edith Muir, Mary Dale Newnham, Kathleen Perry, Frances Helen Prentice, Mona Reid, Janet Lilian Riley, Margaret Louise Rough, Thelma Margaret Salomon, Ruth Sharples, Doris Kathleen Shatiord, Ruth Marion Smith, Alice Victoria Smith, Dorothy F Snyder, Evelyn Alice	37 Upper Bellevue Ave 7 Woodstock Ave 245 Melville Ave Bishopsthorpe 301 Fortune St 445 Sherbrooke St. W 1302-8th Ave N.W. 2236 Park Ave 179 Esplanade Ave "Birchcote," St. Foye R. 697 St. Catherine St. W	Westmount, Que. Montreal, Que. Westmount, Que. Cookshire, Que. Bradwardine, Man. Prince Albert, Sask. Montreal, Que. Huntingdon, Que. Calgary, Alta. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Ploilinsburg, Que. Montreal, Que. Montreal, Que.

		-
Name	STREET ADDRESS	CITY OR TOWN
Stewart, Adela Isabel M Tait, Marjorie Jean	453 Sherbrooke St. W 188 King St. E	. Cobden, Ont. . Montreal, Que. St. John, N.B.
	FOURTH YEAR	
	$(McGill\ College)$	
Bagg, William Herbert Borden, Henry	.1357 Clarke St	.Grand Pré King's
†Boyce, J., Clifford †Breitman, Reuben Bunt, Lemuel Oscar †Bustin, Howard Barlow Cameron, George Mansfield. Common, Ernest Cameron Echenberg, Henry Lehrer. Farthing, John Colborne. Fife, Harry Moore. Foran, Herbert Paul. Franklin, Michael H. †Freedman, Joseph (B.Sc. Course) Hébert, Charles Pierre †Hooper, Willis Mathieu †Kay, Edwin Kern, Louis Walter Kern, Louis Walter Kern, Marshall James McCall, George Ronald (B.Sc. Course) McGlaughlin, William Robert. (B.Sc. Course) McGreer, Edgar D'Arcy †McIntosh, Clarence Alexander †McKinnon, James Donald McMinn, Alexander Kirk †Mirsky, Samuel	317-11th Avenue E. 190 St. Timothée St. R.M.D. No. 1 158 St. James St. 208 Wilson Ave. 58 Souvenir Ave. 458 Union Ave. 1 Metcalfe St. 733 Outremont Ave. 2160 Waverley St. 93 Sixth Ave. 11 McGregor St. 637 St. André St. 63 Fairford St. E. 63 Fairford St. E. 41 Lincoln Ave. 22 Burton Ave. 831 Lorne Crescent. 7,331 Metcalfe St.	Co., N.S. Calgary, Alta. Montreal, Que. Thornloe, Ont. St. John, N.B. Adamsville, Que. Montreal, Que. Montreal, Que. Montreal, Que. Amherst. N.S. Outremont, Que. Lachine, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Mose Jaw, Sask. Moose Jaw, Sask. Montreal, Que. Westmount, Que.  Montreal, Que. Sudbury, Ont. Sudbury, Ont. Straid, Co. Antrim, Ireland.
(B.Sc. Course) †Murray, David Fraser †O'Heir, Hugh Bingham Phillips, Otto Bernard	186 St. Joseph St	. Victoria, B.C. . Hamilton, Ont. . Sydney, N.S.
Pratt, William Frederick White Rabinovitch, Boaz	.213 Laval Ave	. Montreal, Que.
(B.Sc. Course) Raphael, Max Isaac Reford, Lewis Eric †Richardson, Eric Carleton (B.Sc. Course)	653 Durocher St	Montreal, Que.
Ross, Henry Taylor	393 Kensington Ave 1049 St. Urbain St	Westmount, Que. Athelstan, Que. Montreal, Que.

<sup>†</sup>Double Course.

Name		Street Address	CITY OR TOWN
Sperber, Lie Stevenson, I	onel Albert Frederiek Kirkla	246 Oxford St	Montreal, Que. Montreal, Que.
†Teitelbaum	, Michael	660 Sherbrooke St. W565 Drolet St	Montreal, Que.

#### FOURTH YEAR

## (Royal Victoria College)

*Barnard, Beatrice Evelyn		
Barnes, Edith L	.P.O. Box 44	.St. John, N.B.
Barnes, Doris Scoullar	.P.O. Box 44	St. John, N.B.
Borden, Eunice Lothrop		
Cameron, Katharine Locke	.25 Grev Ave	Montreal, Que.
Campbell, S. Doris		Lachute, Que.
Cockfield, Helen Reid		Lac Charlebois, Que.
Contant, Rebecca Amy	417 Esplanade Ave	Montreal Que
Dart, J. Doris.		
Davidson, Winnifred Hazel	748 Decarie Blvd	Montreal Oue
Deery M. Jean H	25 Hutchison St	Montreal, Que.
Ford, Constance		Portrouf Sta Oue
Ford, Katherine McLaren		
Foster, Mary Winnifred		
*Consert Municipal Wiles	900 Mountain Ct	. Montreal, Que.
*Garrow, Muriel Wilma	.289 Mountain St	. Montreal, Que.
Gillespie, Kate Menzies		
Godwin, Kathleen F		
Hackett, Aileen Alexandria		Que.
Hackett, Alleen Alexandria		Dorval Sta., Que.
Harvey, Constance Muriel		
†Hemming, Clarissa	.24 Durocher St	. Montreal, Que.
(B.Sc. Course)		
Higginson, Helen Magee		Buckingham, Que.
Holland, Ethelwyn Jamieson		
Husk, Ruth Joy Esther		
Larkin, Beatrice Jean		
Lewis, Esther Eileen		
Macdiarmid, Margaret Lumsder	n.36 Chomedy St	Montreal, Que.
*MacIntosh, Hope	.220 Hutchison St	. Montreal, Que.
McPherson, Anna Isobel	.14 Fenwick Ave	Montreal West, Que.
Mathewson, Dorothy R	.112 St. Famille St	Montreal, Que.
Mills, Gladys Alexandra		
Moule, Dorothy		
, .		One
Olding, Maude Emma Mary		New Glasgow, N.S.
Reid, Regina Victoria	.104 Prud'homme Ave	Montreal, Que.
Roston, Lucille		
Silverman, Malca		
Spier, Jane Dickson		
Thornton, Jessie Muriel		
ruornoon, ocease murici	.141 Oley Ave	. monutem, wat.

<sup>\*</sup>Partial. †Double Course.

### DEPARTMENT OF COMMERCE

#### FIRST YEAR

Name	School Last Attended Home Address
Allan, Douglas Hood	Westmount High School . 421 Roslyn Ave., Westmount, Que.
Bernstein, Sam* *Berzan, David	Commercial and Technical High School 1385a St. Dominique St., Montreal, Oue.
L fp.,	nical High School983 Notre Dame W.,
	Montreal High School 1500 Esplanade Ave., Montreal, Que.
<b>製造 長点 【第78</b>	King Edward H. S 3351 Granville St., Vancouver, B.C.
Proumo C Crohom	Haileybury H. S Cobalt, Ont. Hoscote Coaching Establishment
Bruker, Morris M	Westmount, Que. Montreal High School 169 Stanley St., Montreal, Que.
Bryce, Lawson Elmhirst	Sherbrooke High School. 186 Quebec St.,
b kindi	Studyvera, Ottawa25 Linden Terrace,
Burton, Asa Ronald	Honeoye Falls H. S Honeoye Falls, N.Y., U.S.A.
Buzzell, Leslie Norman	Granby High School1060 Fairmount Ave., Outremont, Que.
•	Westmount High School. 371 Grosvenor Ave.,
Carter, Wyatt Edward	Stanstead College953 Dorchester St. W., Montreal, Que.
Chamberlain, Aubrey R	Trinity College School462 Indian Rd., Toronto, Ont.
Clark, Claude Hamilton Clark, John Arnold	Mt. Allison UniversitySt. Stephen, N.B. Mt. Allison AcademyBox 302, St. Stephen, N.B.
Clarke, T. Esmonde	Hoscote Coaching Establishment
Connor, C. Frederick	Ottawa Collegiate Institute
Creelman, Clifford E Currie, George R	Ottawa, Ont. Georgetown High School. Georgetown, Ont. Saskatoon Collegiate427 Third Ave.,
Dickie, Alexander Douglas	Saskatoon, Sask. Montreal High School115 Vendone Ave.,
Duncan, Stuart Macpherson	Institute 67 Cameron St.,
	Ottawa, Ont. Meisterchaft School23 Bedford Rd., Toronto, Ont
Edward, Donald George	Institute359 Roslyn Ave.,
Emo, John Currie	Westmount, Que. Westmount High School. 4034 Dorchester St.,
	Montreal High School411 St. Denis St., Montreal, Que.
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<sup>\*</sup>Partial.

Name	School Last Attended Home Address
Franklin, Sam	Private Tuition2160 Waverly St., Montreal, Que.
Friedman, William	Commercial and Technical High School54 Chateaubriand Ave.
Furminger, Carlos Paul Gaboury, Maurice Albert	Montreal, Que Appleton High SchoolBeauharnois, Que Montreal High School324a St. Catherine St. Montreal, Que.
Gamble, Wm. C. S	Ottawa Collegiate52 Powell Ave., Ottawa, Ont.
	Ashbury College 305 Stanley St.,
Gauthier, Maurice	Catholic High School, Montreal, Que2412 Park Ave., Montreal, Que.
Goldsmith, Joseph Harold	Ottawa Collegiate264 Murray St., Ottawa, Ont.
Gow, James Sinclair	Queen's University215 Park St., Windsor, Ont.
Graham, Angus Murdock Graham, Gerald	Cookshire High School Scotstown, Que.
	Montreal, Que
	Ridley College
*Hart, Edward	Hoscote Coaching Establishment
Heaney, William G	Westmount, QueVictoria High School460 Superior St., Victoria, B.C.
	Private Tuition314 Pine Ave., W.,
Hodgson, John P	Hoscote Coaching Establishment301 Pine Ave. W.,
	Methodist College, St. John's, NfldWater St. W., St.
	John's, Nfld. St. John High School12 King St., St. John, N.B.
Jamieson, George Kennedy, Maxwell Dawson.	Private Tuition Kinborn, Ont. Trinity College School, Port Hope, Ont
	Toronto, Ont.
	Montreal High School 449 Esplanade Ave., Montreal, Que.
	Ottawa Collegiate 166 Osgoode St., Ottawa, Ont.
-	King George High School.1176 Burnaby St., Vancouver, B.C.
	Sherbrooke High School49 Melbourne St., Sherbrooke, Que.
	Hamilton Collegiate303 St. John St., Hamilton, Ont.
McDonald, R. Fraser Magid, Jack	Acadia Academy Amherst, N.S. Private Tuition 713 Berri St., Montreal, Que.
Martin, Harold Alexander	Stanstead College279a Regent Ave., Montreal, Que.
Matthews, Howard Sands	Brantford Collegiate50 Lorne Cresent, Brantford, Ont.

<sup>\*</sup>Partial.

## REGISTER OF STUDENTS

Name	School Last Attended Home Address
	Royal Naval College85 Pretoria Rd., Halifax, N.S.
Montgomery, Walter James	Albert CollegeGranby, Que. Pembroke High SchoolBox 679, Pembroke, Ont.
*Morris, Royden M	Fort William, Ont.
Negru, Myer	Montreal, Que.
Ogilvie, Leslie G	Westmount High School. 23 Grey Ave., Montreal, Que.
	Trinity College School111 Wellington St., Kingston, Ont.
	Catholic High School228 Park Ave., Montreal, Que.
Pepin, Arthur H	Pointe-Aux-Trembles School Shefford Mountain, Que.
Perodeau, John	Royal Military College781 Sherbrooke St. W., Montreal, Que.
Phelan, Edward	St. Patrick's School2206 Waverley St., Montreal, Que.
Rabinovitch, Reuben	Montreal High School163 Esplanade Ave., Montreal, Que.
Rann, Bennie	Commercial and Technical High School1085 Clarke St., Montreal, Que.
Robinson, Cecil S. K	Windsor Collegiate93 Devonshire Rd., Walkerville, Ont.
(Withdrew Oct. 13, 1920)	Montreal High School810 Cote St. Antoine Rd., Westmount,
Ross, James F	Bishop's College School110 St. Peter St., Quebec, Que.
Scobell, Sydney Clyfford	St. Catharines Collegiate2590 Park Ave., Montreal, Que.
Segal, Mendel	Montreal High School154 St. Famille St., Montreal, Que.
Shackell, Francis E	Catholic High School491 St. Denis St., Montreal, Que.
Silver, Harry J	Commercial and Technical High School223 Jeanne Mance St.,
Simpson, J. R Stanfield, Frank T	Dundas High School Dundas, Ont.
Stephen, Lloyd Emerson	Sault Ste. Marie High School
Stevens, Harold M	Rothesay Collegiate12 Acadia St., Amherst, N.S.
Taprell, William Rees	Appleby School, Oakville, Ont
Tremaine, Albert Edward D Ware, Arthur Karl	Ashbury College

<sup>\*</sup>Partial.

0)		
Name	SCHOOL LAST ATTENDED	Home Address
Wightman, Lyall M		
Willoughby, Gerald Woodrow		Ottoma Out
*Wilson, Clifford P		Ottomio Out
Winslow, Terence H		Maria Ont
		Winnipeg, Man.
Yanovitch, Henry	Commercial and Tech- nical High School	.1638 Esplanade Ave., Montreal, Que.
	SECOND YEAR	
Name	Street Address	CITY OR TOWN
Aaronson, Benjamin. Beattie, James Robert Becker, Louis Julius. Burke, Thomas Vincent. Calvert, Robert Martin. Caplan, Samuel Carruthers, George Andrew Jr Caswell, Arnold Perley. Clarkson, Rowena Adeline. Cockshutt, Eric Morton. Dobell, Sidney Hope. Drummond, Paul Crathern. Dustan, Stanley Gordon. Elderkin, Clayton Foster. Ellin, Mitchel Irving. Falconer, W. Alex. Frinley, George Steele. Fraser, Charles Douglas. Frederick, Wilfred Douglas. Frederick, Wilfred Douglas. Goodkowsky, Isabella May. Holland, George Allison. Hughes, John Robertson. Jones, Gerald Ford. Kaplan, Harry Albert. Kee, Charles Sinclair. Kersley, George Hubert Kirsch, Moses. Ladore, David Richard. Laffoley, Eric John. Lazier, Frederic Redevers L. Lobel, Myer. Mac Kinnon. Alexander Hender Mac Mahon, Hugh Babington A Mott, John Alwin. Mullen, Louis Wilfred. Nichol, Gordon Hart Grieve.	1489 St. Urbain St. 309 Stanley St., 348 Bronson Ave. 122 Havelock St. 756 Notre Dame St. W. 3 Evergreen Place. 370 Durocher Ave. 25 Highland Ave. 172 Chatham St. St. Louis Rd. 80 Drummond Apts. Box 539. 1140 Redland Ave. 1117 Clarke St. 4447 St. Catherine St. 273 Bishop St. 20 Delaware Ave. Box 162. 421 Mt. Pleasant Ave. 134 Ballantyne Ave. N. 421 Gilmour St. 1004 Dorc'ester St. W. 307 St. Joseph Blbvd. W. 208 Pitt St. 135 Brock Ave. 12 Laval Ave. 118 Kildare Rd. 735 Upper Belmont Ave. 186 John St. 359 Esplanade Ave. 860. 270 Huron St.	Montreal, Que. Montreal, Que. Sydney, N.S. Ottawa, Ont. Toronto, Ont. Montreal, Que. Winnipeg, Man. Outremont, Que. Montreal, Que. Brantford, Ont. Quebec, Que. Montreal, Que. Pictou, N.S. Moose Jaw, Sask. Montreal, Que. Westmount, Que. Westmount, Que. Montreal, Que. Ottawa, Ont. Campbellford, Ont. Westmount, Que. Ottawa, Ont. Montreal, Que. Ottawa, Ont. Montreal, Que. Ottawa, Ont. Montreal, Que. Ottawa, Ont. Montreal, Que. St. John, N.B. Montreal, Que. Westmount, Que. Belleville, Ont. Westmount, Que. Belleville, Ont. Charlottetown, P.E.I. London, Ont.
Nichol, John Moore(Left in February)	.1402 McRae Ave	Vancouver, B.C.
O'Brien, Edward Francis Reid, Leonard Gillespie	.32 Glen Ave	Ottawa, Ont.
Reid, Leonard Gillespie Richter, William Harold	.275 Drummond St	Montreal, Que.
Riley, Richard C. Shea, William Michael	.393 Wellington Crescent	Winnipeg, Man.
Shea, William Michael	.226 St. Martin St	Montreal, Que.
Shecter, Max Small, Richard Macpherson B.	.150 Laurier Ave. W	Montreal, Que. Ottawa, Ont.

<sup>\*</sup>Partial.

Name	STREET ADDRESS	CITY OR TOWN
Smith, Cyril Boyd	.26 Seely St	St. John, N.B. St. Jacob's, Ont. Montreal, Que. Ottawa, Ont. Sanderstead, Surrey,
Tyler, Albert John  *Von Abo, Cecil Vivian Wallace, Norman Harold Webster, John Clarence Wilson, Donald Gordon Windatt, Richard Donaldson	Parys, Orange Free State 8.610 Carleton Ave.	South Africa. Westmount, Que. Shediac, N.B. Fruro, N.S.
	THIRD YEAR	
Blackman, Israel Dougall, Greta Ethel Friedman, Norman H Johnson, Arthur Wood Lefkowitz, Abe O'Meara, Robert Stewart Rutherford, John Bulmer Rutherford, William King Shapira, Joshua Werry, Wilfrid Watson	1098 Greene Ave.   1.802 Dorchester St. W   1.802 Dorchester St. W   1.802 Dorchester St. W   1.803 Medical Research Ave.	Westmount, Que. Montreal, Que. St. John's, Nfld. Dutremont, Que. Victoria, B.C. Vestmount, Que. Westmount, Que. Montreal, Que.

## FACULTY OF APPLIED SCIENCE

### FIRST YEAR

Name	SCHOOL LAST ATTENDED	Home Address
Adams, Frederick Johnston	. Royal Naval College2	82 Somerset St., Ottawa, Ont.
Addie, Donald Kyle	High School of Quebec1	
Allcorn, Philip Leslie	Private Tuition9	9 Selby St.,
Almond, EricAnderson, Robert B		
Andrews, Donald C		Westmount, Que.
Table 10 to	Establishment6	8 Arlington Ave., Westmount, Que.
Archer, Aubrey Clifford	Harrison College, Barbados	
Ashby, Reginald Beale	Lower Canada College1	2 Highland Ave.,
Atkinson, Alfred L. C	N. E. County School, Durham Co., Engc	Montreal, Que.  o C.R. Slane Fleming, Vermilion, Alta.
Bailey, Loring Whithall	Quebec High School1	22 Grande Allée, Quebec, Que.
Bailey, William Eaves	Soldiers' Matriculation Class, McGill4	

<sup>\*</sup>Partial.

NAME SCHOOL LAST ATTENDED HOME ADDRESS
Barnes, William HowardMontreal High School239 Pine Ave. W., Montreal, Que.
Bartlett, Allison Lister
Dealing John Albert Soult Ste Meric High
School
Benjamin, AbrahamPrivate Tuition79 Laurier Ave. W.,  Montreal, Que.
Bickford, Arthur A
C.A
Bouchard, John MauriceCatholic High School1062 Delormier Ave.,
Montreal, Que.
Boyd, DavidLachine High School122 Geo. V. Ave., Lachine, Que.
Braithwaite, E. EdwardHuntington Academy125 Quebec St.,
Sherbrooke, Que. Brathwaite, James Y. W Upper Canada College Blind River, Ont. Bray, Alton C Commercial and Tech-
nical High School40 Maguire St.,
Montreal Que
Brennan, John CharlesStudyvera
Brophey, Harold MillerWestmount High School151 Grey Ave.,
Montreal, Que. Brown, Colin BlairStanstead College613 First Ave.,
Quebec, Que. Bryant, James SanbornCommercial and Tech-
nical High School3151 St. Denis St.,
Montreal, Que. Buchanan, William Davey H University of Bishop's
College Gould, Oue,
Buraschi, Carlos V
Burroughs, Reginald W. N Soldiers' Matriculation Class, McGill
Butler, Beryl M. S. Soldiers' Matriculation Class, McGill. Lennoxville, Que.
Butler, Ernest Warren R Ottawa Collegiate Institute 11 Fairmount Ave., Ottawa, Ont.
Buzzell, Henry W Strathcona AcademyAbbotsford, Que.
Campbell, Frank R. Private Tuition. New Denver, B.C. Carter, Cecil Albert D. University of Bishop's
College
*Champagne, Maurice
Oue
Cochran, Thomas PatrickRoyal Naval College, DartmouthStoodley Knowle,
Consiglio, FrancoMontreal High School 90 Milton St.,
Montreal, Que. Cooper, Donald F Westmount High School 341 Metcalfe Ave.,
Westmount, Que. Cope, Edward Seiby Westmount High School 460 Wood Ave.,
Westmount, Que. Cornell, Lyle Jackson Westmount High School 650 Grosvenor Ave.,
Westmount.

<sup>\*</sup>Partial.

Name	SCHOOL LAST ATTENDED	Home Address
Couture, Eugene		
Cram, Maxwell	. Lower Canada College	Green's Harbour, Nfld 73 St. Luke St., Montreal, Que.
de Beixedon, Philip C	School of Brooklyh	Montreal, Que.
Decary, Hector		321 Peel St., Montreal, Que.
Delcellier, Henry Aimé	nical High School	Ontremont, Olle,
Dick, George McKinstry		.80 Frontenac St., Sherbrooke, Que.
Diffley, John Hugh W	.Catholic High School	.1777 Hutchison St., Montreal, Que.
Dion, J Edgar	.Ottawa Collegiate	a Founth Arra
Donnelly, James H		Ottawa, Out.
		Montreal, Ouc.
Donohue, Edward William		.85 St Famille St., Montreal, Que.
Douglas, Percy Livingstone	North Toronto High School	18 Shorneliffe Ave
		Toronto, Ont.
Draper, John Michael	Mount St Louis Institute	.128 Berri St.,
Dwyer, Michael	Ashbury College	.11 Young Ave., Halifax, N.S.
Fairburn, John M	Wykeham House	.75 St. Luke St.,
Farmer, Eric W		.P.O. Box 403,
Farrell, Alfred James		
Ferguson, William P	Ottawa Collegiate Institute	.510 Gilmour St.,
Findlay, William Fraser Finlayson, Archie W	. St. Andrew's College . Montreal High School	Ottawa, Ont. Carleton Place, Ont. .401 Northcliffe Ave., Montreal, Que.
Finlayson, Stuart M	Strathcona Academy	
Forbes, Robert Clarence		. 423 Lansdowne Ave., Westmount, Que.
Foy, Albert Joseph		.71 Clandeboye Ave., Westmount, Que.
Freedman, Ernest		366 Kensington Ave., Westmount, Que.
Giles, Bevans Henry D	Establishment	Montreal, Que.
Gill, Henry Robert T		281 O'Connor St., Ottawa, Ont.
Gillett, George Herbert		7 Weredale Park, Westmount, Que.
Goldstein, Gilbert Roland		267 Bishop St., Montreal, Que.
Goodall, Ernest L	Ottawa Collegiate Institute	40 Ruona Vista Rd
	Institute	Rockcliffe, Ottawa, Ont.

Name	SCHOOL LAST ATTENDED	Home Address
Gravel, Arthur L	.St. Leo's Academy	
Gray, Thomas Albert	. Montreal High School	Westmount, Que. 976 Tupper St., Montreal, Que.
Harris, Alfred Norman	. University of Pennsylvania	
Hayes, Roland Earle		Phila., Penn.
Tray co, Itolana Dane	Institute	333 James St., Ottawa, Ont.
Heyman, Max		.94 Roy St., Montreal, Que.
Higgerty, Henry Bradley	.Ottawa Collegiate	105 Warranlay St
		Ottawa, Ont.
Hofmann, Edward G	_	Westmount, Que.
Hofmann, William H		Westmount, Que.
Holland, Edwin	.St. Joseph College	Leamington Spa.,
Howes, Fred Stanley	.Canadian Khaki	Eng.
	University	157 Elm Ave., Windsor, Ont.
Irvine, Ewen Robert	.Soldier's Matriculation Class. McGill	.59 King Edward Ave.,
James, Arthur Lorne		Montreal, Que.
Joines, III (III La Janie)	nical High School	Montreal, Que.
Johnson, Harry Charles	.Verdun High School	
Johnson, Erskine B	Ottawa Collegiate	. •
	Institute	Ottawa, Ont.
Kent, Kenneth M		4024 Dorchester St., Westmount, Que.
Kerr, Harold S	Soldier's Matriculation Class, McGill	110 Crescent St.,
Kirschberg, Arthur Abram	. Montreal High School	
Kruger, Gene Henry	Westmount High School	Montreal, Que.
Lanctot, Raymond	Montreal High School	Westmount, Que 1908 Van Horne Ave.,
Lane, Wilfred L		Montreal, Que.
Larivière, Robert Andrew		Calgary.
Lawrence, John Ferdinand		Montreal, Que.
Dawrence, John Leidmand	Institute	
LeMay, Paul Victor:	Ottawa University	
Logan, Robert Samuel	. Lower Canada College	
Luxton, Lloyd C	Sault Ste. Marie H. S	Westmount, Que118 Salisbury Ave., Sault Ste. Marie,
McCall, Alan Drummond	Lower Canada College	Ont. 41 Lincoln Ave.,
		Montreal, Que.

NAME .	SCHOOL LAST ATTENDED HOME	e Address
McCarthy, Thomas Edgar	Catholic High School807 Co	te St. Antoine Montreal, Que.
*McCombe, Robert James	Lower Canada College Dorval Lower Canada College Dorval St. Patrick's School	, Que. , Que. Mark St.,
McDonald, Hugh R	Mount St. Louis College220 War	real, Que. verley St., wa, Ont.
	Williamstown H. S Lancast St. Andrew's College 93 Cres	ter, Ont.
McLaren, Gerald Leo	Quebec Seminary St. Mic Que.	hel, Berthier,
McMaster, Francis White	Kingston Collegiate	isdowne Ave.,
McNab, Archibald Hubert	Kamloops H. S Kamlo Northwestern Military and	
McNaughton, Cornelius H Malkevitch, Aaron	Naval AcademyWaldo, Bishop's College SchoolThetfor Commercial and Tech-	rd, Que.
M 1 M 1 1 M	nical High School 1588 Ma Mont	real One
	Loyola College	real. Que.
	Catholic High School2523 Pa Mont	real, Oue,
Martin, Charles Kingdom	Montreal High School 78 Bruc West	e Ave., mount, Que.
Matheson, G. Lawrence	Ottawa Collegiate Institute	sell Ave., wa. Ont.
Matheson, G. W	Bishop's College SchoolEdmun Hoscote Coaching	dston, N.B.
Mellen, Edward Wilson	EstablishmentMorrisl Wykeham House School103 Che	ourg, Ont. omedy St., real, Que.
Mercier, Alexander	St. Patrick's School 373 Lav	val Ave., real, Que.
Merritt, Gerald M	Westmount High School74 Ches	sterfield Ave., mount, Que.
Miller, Anthony Joseph	St. Leo's Academy 40 Mor	
Miller, Arthur Pirie	40 Balls	antyne Ave. N.,
Mitchell, Wallace M	Westmount High School4630 St	
Moore, Alexander Whiteside	Victoria High School1021 Pe	
Morrin, Jos. James	.Catholic High School85 Espl	oria, B.C. lanade Ave., creal, Que.
Moseley, Paul V (Withdrew Jan. 1921) Muir, Allan Kenneth	St. Andrew's College St. Hys	
	InstituteBurford Montreal High School319 Gro	osvenor Ave.,
Murray, John William	St. Peter's College, Radley, Eng331 Elm	mount, Que. n Ave., mount, Que.
	West	mount, water

<sup>\*</sup>Partial.

Name Naismith, Robert	School Last Attended. Private Tuition	
Nixon, Albert Edward	.Westmount High School.	Scotland.
Nutting, Bruce Powell	Ottawa Collegiate	318 Cooper St.,
Ogilvy, Robert Forrest	. Hamilton Collegiate	.165 Maple Ave., Hamilton, Ont.
Olive, Gordon William	.Westmount High School.	
Panneton, John J	Soldier's Matriculation Class, McGill	, •
Panneton, Joseph S	St. Mary's College, Thre Rivers, Que	e
Paradis, Antonio	Quebec Seminary	Ancienne Lorette, Que.
Paterson, Alexander Pierce	. Rothesay Collegiate	
Phipps, Charles Ferdinand	.Trinity College School	.368 Surrise Ave., Victoria, B.C.
Pinhey, Lawrence T. G Pollock, Thomas Douglas	.Lower Canada College .Westmount Hign School.	. Hudson Heights, Que.
Poulin, P. Eugène	.St. John's College	.151 St. Joseph Blvd. E. Montreal, Que.
Pringle, John Buchanan		.167 Rozel St., Montreal, Que.
Racey, Ernest Hamilton		.37 Victoria Ave.,
Ree, Alex	.Western Collegiate Institute	.1344 Davies St., New Westminster, B.C.
Ridout, Andrew M	.Regina Collegiate	.150 Marlowe St., Montreal, Que.
Robertson, Alexander M (Withdrew Jan. 1921)	.St. Andrew's College	.233-4th Ave W., Calgary, Alta.
Robertson, Blake Roscoe (Withdrew Jan. 1921)	.Studyvera, Ottawa	.347b Kenniston Apt., Elgin St., Ottawa, Ont.
Robertson, Hugh Douglas (Arch.)	. Hamilton Collegiate	
Robinson, Harold Forrest	.Westmount High School	
Rochester, William L	.Ottawa Collegiate	
Roome, Frederick Charles E.	. Aysgarth School, Yorks, England	
	Lingitum	Vancouver Island, B.C.
Roy, William Wallace	. Montreal High School	
Rudenko, Samuel Davidı	. Montreal High School	
Rumpel, George Hilborn		
Savage, Meyer Henry	.Commercial and Technical High School	•
Schlee, Ronald	. University School	.9 Lung Ling Rd., Hankow, Cnina.

## REGISTER OF STUDENTS

Name		Address
		eal, Que.
Sharpe, Charles Thomas (Withdrew Oct 11th, 1920)	class, Toronto University75 James	on Ave.,
Of the last John	Toront Melford Tutoring School. Thetford	o. Unt.
(With Jeen Ion 1001)		
	King Edward High School 1287 Da Vanco	iver. D.U.
	King's College School233 Barr Halifa	ington St., x, N.S.
Shaw, Gerald Edison	InstituteWinds	
	.Montreal High School1525 Esp Montr	lanade Ave., eal. Que.
	Montreal High School 2281 St. Montr	eat. Que.
	. University School Superior Victor	na b.C.
Simmonds, Donald	Ottawa Collegiate Institute	C.
	Ottaw	a, Ont.
Smith, Malcolm Kerr	Soldier's Matriculation	. 61
	Class, McGill027 Deri	eal, Que.
Snyder, Herbert Groff		o. 1, Waterloo,
	Private Tuition	ood Handoff,
	. Upper Canada College 840-5th	Ave. West,
	Carga	ry, Alta.
Starke, Andrew Drake	Institute # 506 Met	calfe St.,
Steinberg, Israel	. Montreal High School 1216 St.	va, Ont. Urbain St., real, Que.
Stewart, Donald L	Alexandria High School Dunveg Western Canada College c'o Day	an, Ont.
Stockwell, Henry P Taylor, Lorne Elson		,0220
	Hoscote Coaching Establishment99 Gord Westr	nount, Que.
	Lower Canada College 660 Vice Westr	nount, Que.
	Westmount High School601 Clas Westr	nount, Que.
Vernot, George Edward	. Montreal High School 293 St.	George St., real, Que.
Wall, Gilbert	Hoscote Coaching Establishment148 Cot	Cu Andaina
(Withdrew Jan. 1921)	Ru.,	Westmount,
Wardrope, Thomas Edward	Que. Westmount High School381 Gr	osvenor Ave.,
Warren, Frank Bishop	Westi Miesterschaft School	nount, Que.
warren, Frank Dishop	Toronto195 Sca	rboro Rd., nto, Ont.
Warren, William Adelbert	St. Lambert High School 8-11th .	Ave., ne, Que.

0)-		
Name	SCHOOL LAST ATTENDED	Home Address
Weames, Albert J (Withdrew Jan. 1921) Weisburgh, Casper	.Albany High School1	395 St. Dominique St.
Weitzer, Saul	.Westmount High School.	Westmount, Que.
White, Charles Percy	Academy	Sussex, N.B.
	Charle Modali	Montreal Oue
Whitehead, Jocelyn G		B.C.
Whittall, Ralph Lewis		westmount, Que
Williamson, David	.Hoseote Coaching Establishment	525 Mt. Pleasant Ave., Westmount, Que.
Wilson, Gilbert		
Wilson, Harley		455 Durocher Ave., Outremont, Que.
Winter, William Lewis		596 Victoria Ave., Westmount, Que.
Woolsey, George Roy	Montreal High School	Thetford Mines, Que.
	SECOND YEAR	
Name	Street Address	CITY OR TOWN
Abbott-Smith, Henry Bancrof Allan, John Maynes Ambridge, Douglas White Amos, Pierre Charles	P.O. Box 650 5a Marsella 83 592 Riverfront	Mexico City, Mexico Lachine, Que.
(Arch.) Antliff, James Cooper. Armstrong, Arnold Victor. Baillie, Donald Arthur. Bieler, Jacques Louis. Binns, George Frederiek Bishop, Erie Gordon. Bishop, John Gordon. Blackall, John Fenwick W. Bleau, Alphonse. Bloomfield, Jacob Bouillon, Ernest Linden. (Arch.)	223 Milton St. 261 Melrose Ave	Montreal, Que. Montreal, Que. Bonavista Bay, Nfld. Cupid's, Nfld. St. John's, Nfld. Maisonneuve, Que. Montreal, Que. Paspebiae, Que.
Bradshaw, Frederick Wykeha Bradshaw, Gordon Rothwell Braithwaite, Ethan Edward. Brisbane, William Gordon. Brodeur, Jean Charles. Brodeur, Joseph Paul. Brough, Frank S. Brumell, John Hunter. Budden, Arthur Napier. Buffain, Basil Scott Whyte. Buller, Francis Hamilton. Caldwell, Charles Edward. Carpenter, Thayer Robinson. Champion, Cecil Hugh. Chisholm, Joseph Donald. Clark, Howard Lingley.	.102 Silica St36 Quebec St452 Strathcona Ave229 Chapel St1097 St. Denis St48 Windsor Ave441 Mackay St147 Bishop StBrigus	Nelson, B.C Sherbrooke, Que. Westmount, Que. Ottawa, Ont. Montreal, Que. Westmount, Que. Buckingham, Que. Montreal, Que. Perth, O.t. Montreal, Que. Conception Bay, Nfld. Lachute Mills, Que. Chateauguay Basin,
Clarity and the season of the terminal		

Name	Street Address	CITY OR TOWN
Cleveland, Harry Roll	and	. Danville, Que.
Conner Walter Leiseni		. Ottawa, Ont.
Cooper, Hugh Christo	pher D	. Rydall, Penn., U.S.A. Petherton, Truro, Eng.
(Arch.)	218 Eastern Promenade.	Donathan 1 M.
*Cox Leonard Cordor	216 Eastern Fromenade	Ottoria Ort
Craik, Oliver Stanley		Melbourno Ouo
Urain. George Edward	1 285 Clemow Ave	Ottowa Ont
Cregeen, Kenneth T.	1 Metcalfe St	Montreal One
Cross, George Esplin	369 Metcalle Ave	Wootmount Oue
Culpeper, Bernard Arn	nel2587b Mance St	. Montreal. One.
Currier Joseph H	36 Cooper St	Ottorio Ont
Cuttle, William Gordo	n769 Cote St. Antoine Rd	. Montreal, Que.
Dairymple Edward R	oss 617 Carlton Avo	Waatmount Our
Davidson, Stanley Ced	cartney 708 Rosedale Crescent	Westmount, Que.
Davidson, William Me	Cartney 708 Rosedale Crescent	.Calgary, Alta.
Davies, Clarence Bern	ard162 Clemow Ave e37 Arthur St	.Ottawa, Ont.
Davis, William Wallace	ell130 Maple Ave	.Ottawa, Ont.
de Salaberry Remord	477 Kent St	.Quebec, Que.
Desbarats Harrison Je	on 757 University St	Montroal Oug
Deslover, Raymond		Montreal Oue
Dickinson, Albert God	frey 914, 21st Ave. W	Vancouver B C
Dormer, William John	Smylie	Lennovville Oue
Downs, Henry William	L	Lennovville One
Dunnis Ronó		Dila Diana O
Dyer, William Robert		Alberton, P.E.I.
Eadie, Thomas Wardre	ope1321 Wellington St	.Ottawa, Ont.
Elkington, Gerald Erla	ımOak Park	. Duncan, B.C.
Evans, Charles Durwa	rd 19 Claire Fontaine St	Quebec, Que.
Fagan, James Wilfrid	1899b St. Catherine St.E.	. Montreal, Que.
Faith, Willard V	grave401 Northcliffe Ave	. Winchester, Ont.
Finlayson, Harold Mus	grave401 Northcliffe Ave	. Montreal, Que.
Flaming Commons Dre	ell	Montreal, Que.
Foss Donald Burrows	s1 Bellvue Ave	. Windsor, Ont.
Foss Lindsay Justin	297 Prince Arthur W	Mantraal Oue
Foster, Frederick Law	ton 19 Horsefield St	St John N. D
Fotheringham, John P	894 Echo Drive	Ottomo Ont
Friedman Victor Edw	ard 299 Flm Ave	Wootmount Our
tiom blo Robert Rmie	915 Coomer C4	
Gaudet, Gaston	**************	Valois, Que.
Gegg, Richard Conrad	"Fareham," Broadwood Road) ne 443 Bleury St	l
Callered Table 37 L	Road)	Hong Kong, China.
Coldborn Harry Lilia	ne 443 Bleury St	Montreal, Que.
Graham Goorge Potto	Morton.Box 117rsonP.O. Box 2	Glace Bay, N.S.
Grant Grainger Stores	rt Government House	New Glasgow, N.S.
Griffith Thomas Rayy	nond121 Park Ave	Montreal Ove
Gunton, George Edwin	Hond121 Tark Ave	Simon Ont
Hague, Edward Cousin	s 772 Dorchester St. W	Montreal Oue
Hamilton, Geoffrey Jol	hn287 Mountain St.	Montreal, Que.
Harbert, Edward Thor	hn	Westmount, Que.
Harling, Frank Norma	n205 Westmount Blvd	Westmount, Que.
Trogre, John Douglas	349 Lansdowne Ave	Westmount, Que.
(Arch.)		
Holden John Harcourt E	184 Mance St	Montreal, Que.
Holden, John Hastie		Westmount Oue
mount	tstephen.1729 De La Roche St	Montreal, Que.

<sup>\*</sup>Partial.

Name	Street Address	CITY OR TOWN
Jackson, Lawrence Wright Jenks, William Stuart	42 Edward St	. Halifax. N.S.
Jerrom, Cyril Lewis Johnson, William James	<sub>.</sub>	.Cornwall, Ont.
Johnson, William James	.100, 44th Ave	Lachine, Que.
Jones, Frederic Howden Katz, Morris	.1759 Rockland Ave	Montreal Oue
Kennedy, Neil	930. 1st Ave. West	Owen Sound, Ont.
Kezar George Lennox	Britannia Heights	.Ottawa. Ont.
Kingan Gordon Herron	. 1710 Hutchison St	Montreal, Que.
Kingsmill, Walter Juchereau	.Ballybeg, Rockcliffe	.Ottawa, Ont.
Laidley, Wendell Howard Lawrence, Frederick S	. 1850 Park Ave	Montreal, Que.
Layre, John Graham	Peronne	Barbados, B.W.I.
Lea. Harry Windsor		Victoria, P.E.I.
Lea, Harry Windsor LeBaron, Karl Shurtliff	.154 London St	. Sherbrooke, Que.
Legg Roland Edward	1330 Bond St	. Victoria, B.C.
Leitch, Hugh J Lemieux, Charles	.476 Stratheona Ave	Montreal One
Livingstone, Arnold Clarence.	963 Tupper St.	Montreal, Que.
Lvall. Douglas Creswell	.18 MacGregor St	. Montreal, Que.
Lyall, Douglas Creswell McCaw, John Blacklock	.41 High St	.Sherbrooke, Que.
McCracken, Elmer Gordon McDonald, Somerled		Huntingdon, Que.
McDonald, Somerled Macduff, Albert	.811 University St	. Montreal, Que.
( 4 1. )		
McEwen Daniel Wallace		. Maxville, Ont.
McLagan, Thomas Rodgie MaeLaren, Albert Roy	429 Argyle Ave	. Westmount, Que.
MaeLaren, Albert Roy		Buckingham, Que.
Maclaren, Alexander Barnet MacLeod, Alexander Norman.	P.O. Boy 14	New Waterford, N.S.
McMeans Lendrum Edmund	.40 Westgate	. Winnipeg, Man.
Maxaughton Donald Russal	RMD No.4	Victoria, B.C.
Macnutt, Erskine Keir	852 Dorohoster St. W	Marpeque, P.E.L.
Malison, H. Douglas	1366 Greene Ave	Westmount, Que.
Matheson, Arthur Marshall	.69 Russell Ave	Ottawa, Ont.
Matheson, Arthur Marshall Mills, Charles Perkins	67 Fifth Ave	Ottawa, Ont.
Mitchell, Geo. MacGregor	.85 Victoria Rd	. Halifax, N.S.
Moore, Reginald Arthur Moran, Taylor Matthew	e-o Municipal Hall	Ottown Ont
Morin Charles Angusta	- 2/19 Christophe Colomb.	. Montreat. Oue.
Mulligan, Claude Aylmer		. Maniwaki, Que.
Mulligan, Claude Aylmer Munn, Wilfred Lockerby	.4273 Dorchester St	. Westmount, Que.
Munro, David John Best	.2299a Hutchison St	Montreal, Que.
Munro, David John Best Munro, Gordon Hugh. †O'Heir, Hugh Bingham	520 Dickson St	Hamilton Ont
Oliver, James Harold		. Rockburn, Que.
Oliver, Cumbert Jack Oliver, James Harold Owens, Owen Norreys H	26 Summerhill Ave	Montreal, Que.
Dominio Englished Devol	972 Do Fenco Ave	MODIFONI, CHE.
Patterson, Thomas Bilton Patton, Hugh Bradford	2017 Monco St	Montreal, Que.
Pelletier, René A	199 St. Famille St	. Montreal, Que.
Potors Arthur Wright	50 Chesterneld Ave	West mount, Que.
Ploy Cardon Locklin	316 Kensington Ave	Westmount, Que.
Down H. Allen Trees	19 Allan Place	Ottawa, Ont.
Powell, Fraser Edwin Radley, Percy Edward	52 Delaware Ave	Ottawa, Ont.
Radley, Percy Edward Raginsky, Bernard	468 Bloomfield Ave	. Outremont, Que.
readinger) inclinater		

<sup>†</sup>Double Course.

Name	Street Address	City or Town
Raskin, Franz Joseph Read, Douglas Ellery. Reaper, Clarence Paul.	59 Melbourne St	Sherbrooke Que
Reid, Howard Edward Renouf, Edward T	Granville Ferry	Annapolis. Co., N.S. Montreal. Que.
Rhind, John	150 Marlowe Ave	Montreal, Que.
Roquet, Leo Laurent	.96 Chapel St .1979 Hutchison St .4 Tache Ave	Ottawa, Ont. Montreal, Que. Quebec, Que.
Ross, Malcolm Vaughan Ross, David Roy Roughsedge, John Haslam K St. Germain, Paul	.40 First Avenue	Truro, N.S. Ottawa, Ont. Montreal, Que.
St. Germain, Paul. Scott, James McDonald. Scott, Lewis John. herrard, Edwin Atwater.		
Sherwood, Thomas Kilgore. Shier, Bruce Banks Simpson, James Catanach	.437 Grosvenor Ave .859 Roslyn Ave	Westmount, Que. Westmount, Que.
Simpson, Richard Landon Smallhorn, Edward Thomas	.2381 Hutchison St 7 Vendome Ave	Montreal, Que.
Smith, Adam Wyndham S Smith, Archie Ewart †Smith, Robert Macfie.	.246 Oxford St. W	Moose Jaw. Sask.
Snyder, Earl Spriggs, Robert Haywood Steacie, Edgar William Richard		Co N C
Stephen, Gordon Robert Stethem, John Eric Holt Stirling Laurie Brodie	.198 Belgrave Ave .147 Westmount Blvd	Montreal, Que. Westmount, Que.
Stone, Clarence E Steadwick, Ralph Danell S Strong, Allan Bryson (Arch.). Tallon, Joseph Andrew Taschereau, Rogers Harwood.	.005 Roslyn Ave	Westmount, Que. Glenelm, Que.
Taylor, Clarence Wesley Terrance, Emmett Howard Timmis Harold Gordon	.538 King Edward Ave	Ottawa, Ont. Carberry, Man. Ottawa, Ont.
Toole, Francis James	I Orleans Rd., Hornsey Lane	Highgate, London, N. 19, England.
Turnbull, Andrew Rutherford. Velasco, (Marmanillo) Edward Webster, Robert Chilion Peter	. 196 Metcalfe St	Niagara Falls, N.Y. Cuzco, Peru, S. Am. Ottawa, Opt.
White, Gerald Leland	.113 Stanley Ave	Trail, B.C. St. Lambert, Que.
Wilson, Percy Roy(Arch.) Winter, Frederick Roberts Wood, Robert	. Summit Ave	Sault Ste. Marie, Ont.
Woollcombe, Edward Mickle  Wylde, Charles Napier	.2 Cloverdale Rd	Rockcliffe, Ottawa, Ont.
Yorston, Frederic Harrison Zybach, Jack Melchior (Withdrew Jan. 1921)	.1948 Park Ave	Montreal, Que.

### THIRD YEAR

Name	Street Address	City or Town
*Abbott-Smith, Reginald Bancroft. Ahern, Arthur Weston	10 Bellevue Ave. 8 St. Denis Ave. 377 Daly Ave. 289 Richmond St. 845 Oxenden Ave. R.R. No. 3. 96, 44th Avenue. Belleisle Station. 7 Dufferin Ave.	Westmount, Que. Quebee, Que. Quebee, Que. Ottawa, Ont. Charlottetown, P.E.I. Montreal, Que. Richmond, Que. Lachine, Que. King's Co., N.B. Brantford, Ont.
Bethune, John Strachan Talbot Biggar, Pereival Elliott Binmore, George Bedell Bissell, Harold Rudolph Black, Hugh Murray. Bonneville, Sydney Boronow, Paul Bradfield, John Ross Brooks, Charles Lennox Brown, Edmund Vere Brown, George Basil Brown, Lawrence Elliott (Arch.) Buchanan, John Edmond		
Bush, Harold Frederick. Carlyle, Arthur William. Carson, Cecil Edward. Cartwright, George Herbert. Clark, George Silas. Chorney, Melvin M. Clarke, Ira Wallace. Clarke, Edward Lawrence. Clerk, Ronzo Douglas. Cloutier, George Edwin Joseph Coughlan, Gerald Diomede. Cousineau, Charles A. Crane, John Halliday.	558 Bay St. The Roxborough Apts. 465 Stratheona Ave. Apt. 7, 26Buckingham Ave. R.M. D. 6. 994 Cadieux St. 202 Harvard Ave 4101 Sherbrooke St. W. 2339 Park Ave. 244 Mance St. 2733a Drolet St.	Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Westmount, Que. Montreal, Que. Lachute, Que. Montreal, Que. Bear River, N.S. Montreal, Que. Westmount, Que. Montreal, Que. Montreal, Que. Montreal, Que. Peterborough, Ont.
son Cromwell, Alexander Ross Davis, Sydney Herbert Delaney, William Victor Patric Desbarats, George Henry Dincen, Matthew Henry Drummond, Ross Newton Duff, Edgar C Eager, Norman H. A. Elliott, Gerald Burton Evans, William Farquharson, John Spencer	410 Mance St	Montreal, Que. Cookshire, Que. Ookshire, Que. Ottawa, Ont. Wolfville, N.S. Ottawa, Ont. Montreal, Que. Montreal, Que. Carbonear, Nfld. Westmount, Que. Westmount, Que. Montreal, Que. Constant Spring P.O.,
Fisk, George Harold Ford, Robert Foss, Roy Holmes. Fraser, Andrew Stockwell Fry, John Dawson Glen, Alexander F Gnaedinger, Adrian Leslie Gnaedinger, Paul Ernest	166 Drummond St. 15 Craig St 1 Bellevue Ave. 380 Elgin St 66 McTavish St. 465 Lansdowne Ave. 4170 Dorchester St. W.	Montreal, Que. Ottawa, Ont. Sherbrooke, Que. Ottawa, Ont. Montreal, Que. Ste. Agathe des Monts, Que. Westmount, Que. Westmount, Que.

Name	Street Address	CITY OR TOWN
Godard, John Stoddart Gooch, Harold C Gordon, George Blair Grant, Ralph Glencoe Griffith, William Ernest.	172 Marcil Ave	Montreal, Que. Montreal, Que. Montreal, Que.
Griffith, William Ernest Grondin, Leon Joseph Gualtieri, Santo Figline. Gurman, Israel T. I. Hamel, J. H. N. Albert. Hamilton, Philip Dawson P.	50 Notre Dame St c o U.S. Smelting Co	Three Rivers, Que. Midvale, Utah,
Handy, Lee Harris, Clifford N. Hastings, Walter H. Holmes, Everett Eric.	2030 Broad St	Regina, Sask. Westmount, Oue.
Hulburd, William Chauncey Humes, Harold Louis	291 Old Orchard Ave	Montreal, Que. Cowansville, Que. Westmount, Oue.
Jandrew, Cyrus Bertram Johnson, Edwin Lewis. *Jue, Peter B. Kerr, George Elliott. King, John David		Outremont, Que. Montreal, Que. Fernie, B.C.
Kirsh, Harry Kyle, Donald Gordon Lawrence, Archibald Rowley Loebel, John Mayer	400 West Hill Ave	Montreal One
Luke, Morley Corbus (Arch.)	2011 Waverly St 41 Brock Ave. N	Montreal, Que. Montreal West, Que.
McCallum, Fred Lee	nd.25 Cobourg Rd	Welland, Ont Halifax, N.S Hamilton, Ont. Wontreal One
McEvoy, Vincent Joseph MacGregor, Roderick	George Street	Newcastle, N.B.
MacKeen, David Whitney Mackenzie, Donald Gordon Mackenzie, George Home Mackenzie, William Bigelow	1012 Dorchester St. W 417 Long Bldg 91 Steadman St.	Montreal, Que. Kansas City, Mo. Moncton, N.B.
McLennan, Gordon Roderick Macnaughton, Moray Fraser MacNider, Clarence Henry Macrae, Donald	38 Burton Ave	Westmount, Que.
Macrae, Donald McTaggart, George Duncan. Macoun, John Macoun. Martin, Kenneth Beriah. Messenger, William Aubrey. Midgley, Russell Edward	Experimental Farm E. 1933 Illinois Ave	Clinton, Ont Ottawa, Ont Spokane, Wash Montreal, Oue.
Midgley, Russell Edward. Mitchell, J. Murray. Mitchell, Robert John. Morris, Robert Schofield	113 Northcliffe Ave 4630 St. Catherine St 37, 7th Ave. W	Montreal, Que. Westmount, Que. Vancouver, B.C. Hamilton, Ont
(Arch.)	10 Frantana St	Sharbrooks Oue
Morrison, David Reid. Mott, Harold Edgar. Munro, William Cauldwell. Murphy, Alexander Gordon Silcox. Murphy, Edward Justin.		
Murphy, Edward Justin Nesbitt, Martin Becerra	366 Fifth AveRio de Plata	New York, N.Y. Chihuahua, Mexico.

<sup>\*</sup>Partial.

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Name	Street Address	CITY OR TOWN
Notman, James Geoffrey Paddon, John Edmund Parker, Charles Alexander Patterson, Kenneth Breek Perry, Alfred Leslie	4193 Avenue Road 80 St. Mark Street 8 Tormey Street 4222 Dorchester St.	Westinount, Que. Montreal, Que. Ottawa, Ont. Westmount.
Perry, Alfred Leshe		
Porritt, Richard Valentine Potter, John Byers Quinlan, James T Ramsay, Kenneth MacPherson Reed, Gordon	202 Rodforn Ave	Springfield, N.S. Westmount Oue
Ramsay, Kenneth MacPherson	1.6 St. Famille St	Quebec, Que.
Reeve, Charles Lailey	284 De L'Epée Ave 330 Old Orehard Ave	Outremont, Que. Montreal, Que.
Reed, Gordon Reeve, Charles Lailey Reid, Eric Arnold Reiffenstein, John Christopher Roberton, John Gordon	459 Elm Ave	Westmount, Que. Montreal, Que.
Root, Stephen Eastman	581 Crosvenor Ave	Westmount, Que.
Ross, David Roy		. 1 ruro, 18.5.
Drummond	495 Mount Pleasant Ave	. Westmount, Que.
Rutherford, Andrew Scott Salter, Fred. Cumberland Schleifstein, Montague L	109 Cote St. Antoine Rd. 4474 St. Catherine St	. Westmount, Que. . Westmount, Que.
Schleifstein, Montague L Scott, Paul Stuart	1049 St. Urbain St	Montreal, Que.
Schleifstein, Montague L	207 Supryside Ave	Michel, B.C. Ottawa, Opt.
Stockwell, Aylmer Winchel. Taber Harold E.		St. Johns, Que. Carleton Place, Ont.
Tatley, David Lambert Taylor, Edward Plunket	. 49 Belvedere Road 201 Augusta St	. Westmount, Que. Ottawa, Ont.
Stockwell, Aylmer Winchel. Taber, Harold E. Tatley, David Lambert. Taylor, Edward Plunket Taylor, John Ellis. Thompson, Cecil E. Tueker, Bryant Burgess.		. St. John W., N.B. Ottawa, Ont.
Tueker, Bryant Burgess  Turton, Victor Herbert	. King's Nympton Rector	y Chumleigh, N. Devon, England. Westmount, Oue
(Left Oct. 20) Wain, Eric James		
Wait, Eric Holloway Watt, Leslie Alexander	. 55 Drummond St	Montreal, Que. Ste. Anne de Bellevue,
(Arch.) Weldon, Thomas Herbert Wilder, Hartland Bates Wightman, John	680 Roelyn Ave	Westmount, Que.
Wightman, John		
Wilson, Selwyn Hamilton Wonham, Walter Richard Woodward, Eric Raymond Woolward, Charles Desmond	226 Wood Amenua	Westmount Unie.
Wright, W. Stanley		
	FOURTH YEAR.	
Acton, Harold Joseph Anderson, Alexander Gordon	4837 St. Catherine St	Westmount, Que. Buckingham, Que.
Anderson, Alexander Gordon Armstrong, Paul Frederic Bain, George William	46 Victoria St	. Montreal, Que. . Lachute, Que.

<sup>\*</sup>Partial.

Name	STREET ADDRESS	CITY OR TOWN
THE R. L. L. L. L. C. C. C. C. C. C. C. C. C. C. C. C. C.	O Cumamarhill Area	Montreal, Que.
Bishop, Trenholm Allen Gill Brault, Paul George Adrien Brow, James B	405 Durocher Ave	Outremont, Que.
Brow. James B	88 Upper Prince St	Charlottetown, P.E.I.
Calkin, Darrell Lorraine		Kentville, N.S.
Cambron, Adrien	.40 Council St	Sherbrooke, Que.
Canning, Dow Vernon	.109 Drummond St	Montreal, Que.
Brow, James B. Calkin, Darrell Lorraine. Cambron, Adrien. Canning, Dow Vernon. Challenger, James Othneil. Clark, Richard Gladstone. Clossey, Emile Guillaume. Cockfield, Alfred Ernest. Cohen, Joseph. Congleton (Lord) John Brooke Copping, Allan Blythe. Croft Carman Milward.		Boor Pivor N S
Clark, Richard Gladstone	cot St. Donis St	Montreal Que
Clossey, Emile Guillaume	97 Posemount Ave	Westmount, Que.
Cockneld, Alfred Ernest	24 Rosemount 21ve	Ottawa, Ont.
Congleton (Lord) John Brooke	20 McTavish St	Montreal, Que.
Copping Allan Blythe	504 Lansdowne Ave	Westmount, Que.
Copping, Anal Big Milward. Croft, Carman Milward. Cromwell, Harry Roy Cuddy, John Michael. Cunningham, Frederick James. Davis, Samuel. Dewar, Charles Leonard. Drewry, John Haworth. Durant, N. Morton. Eaton, Milton. Farmer, Rupert Whitley.		Digby, N.S.
Cromwell, Harry Roy		Sawyerville, Que.
Cuddy, John Michael	.269 Mance St	Montreal, Que.
Cunningham, Frederick James.	.299 McLeod St	Montreal Oue
Davis, Samuel	.40 Cote des Neiges Road.	Ottowo Ont
Dewar, Charles Leonard	797 Linden Ave	Victoria, B.C.
Durant N Morton	.121 Einden 11 C	Parrsboro, N.S.
Eaton Milton		Treherne, Man.
Farmer Rupert Whitley	Oughterson,	St. Philip, Barbados,
Turmer, respective		B.W.I.
Farnsworth, Arthur Leslie	<u>.</u>	. Cookshire, Que.
Fellows, Howard	. Box 14	Stellarton, N.S.
Ferguson, John Alexander	722 Stanley St	Montreal Oue
Forbes, Karl	101 Manca St	Montreal, Que.
Fortin, Gaston Lalonde	41 Arlington Ave	Westmount, Que.
For Hugh Dean	653 Union Ave	Montreal, Que.
Gardner, John George	. 106 St. Matthew St	Montreal, Que.
Gauthier, Paul Gilles	259 Prince Arthur St	. Montreal, Que.
Gibbs, John Hodgson	<u>.</u>	Buckingham, Que.
Giles, George Reid	479 Greene Ave	Westmount, Que.
Gill, James Edward	1522 Graveley St	Ottown Ont
Gliddon, William Gilbert C	1617 Joanna Manca St	Montreal Que.
Farmer, Rupert Whitiey  Farnsworth, Arthur Leslie Fellows, Howard Ferguson, John Alexander Forbes, Karl Fortin, Gaston Lalonde Fowler, Wallace Wadsworth Fox, Hugh Dean Gardner, John George Gauthier, Paul Gilles Gibbs, John Hodgson Giles, George Reid Gill, James Edward Gliddon, William Gilbert C. Goodman, Charles Davis (Arch.)		. Montrour, coas
(Arch.) Goodwin, Cassels Dunbar Green, Frederick Gordon		.Baie Verte, N.B.
Green Frederick Gordon	161 Charlotte St	St. John, N.B.
Hall. John G		.Cornwall, Ont.
Hannan, James	2 Home Place	Irvington, N.Y.
Harris, Clifford Norton	73 Willibrord Ave	Verdun, Que.
Harrison, Donald Ranald	254 C4	Ottown Ont
Hart, Lawrence Folger A	D 52 Recomput Ave	Westmount, Que.
Green, Frederick Gordon. Hall, John G. Hannan, James. Harris, Clifford Norton. Harrison, Donald Ranald. Hart, Lawrence Folger A. Henderson, Conway Hemsley! Hill, Stanley Clayton H. Hyndman, Edward Douglas. Living, George Ewart Logan.	D.J2 Hosemount Hve	Richmond, Que.
Hyndman Edward Douglas	64 Montreal St	. Sherbrooke, Que.
Irving, George Ewart Logan.  Jackson, Carl Henry	P.O. Box 152	Moncton, N.B.
Jackson, Carl Henry	2127 Jeanne Mance St	. Montreal, Que.
Jelly, Calvin Sherwood		Carleton Place, Ont.
Jenckes, Kennan Brooks	18 Quebec St	Outromont Oue
Johnston, Harry Wyatt	. 25 Bellingham Road	Westmount Oue
Jordan, Herbert Scott	41 Lorno Avo	Montreal Que.
Kay, Stuart Evans	Suite 307 Devon Court.	Broadway, Winnipeg.
Langstroth Cecil Craven	Wayside In	, Hampton, N.B.
Lantz. Floyd Crawford	132 Crescent St	Montreal, Que.
Livingstone, Kenneth MacKay	71249 Kenyon St N.W	Washington, D.C.
Lordly, Guy Sterling	· · · · · · · · · · · · · · · · · · ·	. St. John, N.B.
Jackson, Carl Henry. Jelly, Calvin Sherwood. Jenckes, Kennan Brooks. Johnston, Harry Wyatt. Jordan, Herbert Scott. Kay, Stuart Evans. Kennedy, Charles Laurence. Langstroth, Cecil Craven. Lantz, Floyd Crawford. Livingstone, Kenneth MacKay Lordly, Guy Sterling. Louttit, William Charles. Loy, John Austin.	3371 Greenshields Ave	Ottown Opt
Loy, John Austin	200 Irving St	New Glasgow, N.S.
Macdonald, Daniel		.Springhill, Que.
Macdonald, Damel		

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Name	Street Address	CITY OR TOWN
Mawdsley, James Buckland Maxwell, Edward Blythe. Mitchell, Frank Leslie. Mooney, Revel Burdett. Muir, Wilson James. Nutter, Jaek Caswell. O'Halloran, James. O'Sullivan, Louis. Palmer, Charles Leonard.	84 St. Famille St. 1012 Dorchester St. W. 147 Bishop St. 312 Peel St. 161 Admiral Road. 386 Roslyn Ave. 408 Queen St. 13 Ingleside Ave. 3 Lombard St.	. Montreal, Que Montreal, Que Montreal, Que Clemens, Alta Montreal, Que Toronto, Ont Stellarton, N.S Westmount, Que Lennoxville, Que Ottawa, Ont Westmount, Que London, E.C.,
Salamis, Basil C		Westmount, QueWestmount, QueCobden, OntMontreal, QueOttawa, OntLeka, Island Samos,
Sloves, Moses. Smith, David Whitney. Smith, Roy Hamilton. Stroud, William Dicker. Tansley, Wilfred Thompson, Gordon Maurice Thomson, Walter Wilfrid Timmerman, Everett Drinkwater Van Etten, Fred. Bouton		Montreal, QueMontreal, QueWestmount, QuePietou, N.SMontreal, QueToronto, OntVancouver, B.COutremont, QueMontreal, Que.
Ward, Melville Ernest St. C Warriner, Norman Downin Watson, Conrad Ethelbert. Weldon, Leslic Smiley Wells, Maurice R Whelan, Morland Powers Wilkins, Harold Oswald Da Wilson, James Kinnear Winslow, Kenelm Molson	St.Elmo Apts., Colony St. 52 Clergy St. g. 453 Old Orchard Ave. Race Course P.O. 636 Dorchester St. W. 4036 Tupper St. 260 Somerset St. st. 34 Victoria St. 136 Middle Gate. ue. 116 Crescent St.	Kingston, Ont Montreal, Que, New Yarmouth, Jamaica, B.W.I Montreal, Que Montreal, Que Ottawa, Ont Norwood, Ont Sherbrooke, Que Winnipeg, Man.

### ARCHITECTURE, FIFTH YEAR

Durnford, A. T. Galt	9 Simpson St	Montreal, Que.
Lyman, Walter Kenneth Gordo	on.74 McTavish St	Montreal, Que.

# FACULTY OF MEDICINE

#### FIRST YEAR

Name	School Last Attended Home Address
Abey, William John E Adamson, Lewis Goodman	Brandon Collegiate Charter, Man. Private Tuition 1 St. Chas. Apts., Amesbury Ave., Montreal, Que.
†Alexander, Benjamin	Montreal High School 28 Durocher St., Montreal, Que.
Amos, Issie	Commercial and Technical High School
Benson, Harry Gladstone	
	. Montreal High School413 Colonial Ave., Montreal, Que.
Bickford, John William	University of GuatemalaBanco Americano, Guatemala C. A.
Bloomfield, Maxwell I	Mt. Allison University North Sydney, N.S. Private Tuition 724 St. Denis St., Montreal, Oue.
Boucher, Harold H Bowman, Frederick Basil	Chilliwack High School . Chilliwack, B.C. Owen Sound Collegiate InstituteSouthampton, Ont.
Brady, Charles PetertBrown, Frances Trapp	Ottawa Collegiate Lancaster, Ont
Burwell, William K Byrne, James Arthur	Renfrew Collegiate Inst Box 13, Renfrew, OntSt. Dunstan's University.48 Great George St., Charlottetown, P.E.I.
Campbell, George C	.Lower Canada College123 Crescent St., Montreal, Que.
Caplan, Israel Arthur	.Montreal High School731b Cadieux St. Montreal, Que
	.Montreal High School992 Cadieux St., Montreal, Ouc.
	. Grenada Boys' SchoolSt. Georges, Grenada, B.W.I.
·	. McGill University 35 Aberdeen Ave., Westmount, Que.
Conrad, Egbert Victor	Class McGill East Laffave, N.S.
Corbett, William E. P	Soldiers' Civil Re-estab- lishment School Fairfield House,
	Alphington Rd., Exeter, England.
Cowan, William Ernest	Ottawa Collegiate Inst187 Walker St., Ottawa, Ont.
Darby, George B	Mt. Allison UniversityMethodist College, St. John's, Nfld.
Dawson, Lawrence W	Port Hope High School. Baillieboro, R.M.D., Ont.
	Mt. Allison University70 Exmouth St., St. John, N.B.
De Belle, John Ernest	Hoscote Coaching Estab- lishment
Denean, Frederick Joseph	Sussex Public SchoolSussex, N.B.

<sup>†</sup>Double Course.

Name	School Last Attended	Home Address
Dowd, Joseph Everett	.Private Tuition	.13 Third Ave., Ottawa, Ont.
Dreger, Harry Carl	. Kitchener College and Technical Institute	58 Courtland Ave.,
Duffy, St. Clair Farmer, Walter David Flater, Nathan Frank Fullerton, Charles Watson	Ottawa Collegiate Inst .Western Canada College.	. Cumberland, Ont. . Ledue, Alberta. . 320 Kensington Ave.,
Galipeau, Edwin J	.Catholic High School	Westmount, Que. .506 Moreau St., Montreal, Que.
Garcin, Cecil Redvers Gaslin, Thomas James	St. Michael's College.	Bonne Bay, Nfld.
Gately, Jerome Joseph	. Norwood High School	North Lancaster, Ont. Norwood, N.Y., U.S.A.
Gault, Stanway	Vankleek Hill High Sch. Ashbury College	Vars, Ont.
George, Jack		
Gillies, James Noel	_	Port Daniel Centre,
Glass, Alexander Ronald	Ridley College	King and Court Sts., St. Catharines, Ont.
Glassco, William Girdlestone.	Upper Canada College	242 James St. S., Hamilton, Ont.
Gosnell, Thomas L	.St. John High School	.104 Harrison St., St. John, N.B.
Gradinger, Carl Hyman	. Montreal High School	.106 Bourget St., Montreal, Que.
Graham, Ernest Edward Grant, William H. S	.Carp Continuation School .Westmount High School.	
Grassick, Gordon Henry	Regina Collegiate	.1604, 16th Ave., Regina, Sask.
Greer, William Mills	Westmount High School.	
Hamilton, John Stewart M	.Brockville Collegiate Inst	
Harcourt, Charles Victor (Withdrew October, 1920) Harding, Thomas Ernest W		.444 MacKay St., Montreal, Oue.
Helmeken, John S		Brockville, Ont.
		Oak Bay, Victoria, B.C.
Henderson, John Stanley Herman, Morris	.Chilliwack High SchoolMontreal High School	.Chilliwack, B.C.
†Hershon, Henry	Montreal High School	1402 Clarke St., Montreal, Que.
†Higinbotham, Norman Lindsa	yLethbridge High School.	
Hill, Albert Griffin Hudon, Frederick Valmore Hutchings, Harry Roberts	Fergus High School Loyola College St. Andrew's College	Box 142, Fergus, Ont.

<sup>†</sup>Double Course.

Name	School Last Attended	Home Address
Hutton, William	Soldiers' Matriculation Class, McGill3	7 Garland Ave. Ottawa, Ont.
Huxtable, Robert Austin (Withdrew Dec., 1920) Johnson, Willard Edgar Johnston, Burnett S. †Kanigsberg, Jacob C	School	Vindsor, Que. Almonte, Ont. Brockville, Ont. 30 Strathcona Ave.
Kelly, Frederick G	.St. Dunstan's College 1	Westmount, Que. 30 Fitzroy St., Char- lottetown, P.E.I.
Kelly, Michael A	St. Michael's College1	02 Osgoode St., Ottawa, Ont.
Kennedy, Roy Kolber, Ben	. Montreal High School 1	Kensington, P.E.I. 1089 St. LawrenceBvd
Land, Harry David		1 Lingan Road, Sydney, C.B.
Langlois, Albert	Ottawa University	559 Cumberland St., Ottawa, Ont.
Littner, Max		94b City Hall Ave., Montreal, Que.
Lynch, John G	_	Ottawa, Ont.
Macaulay, Malcolm John		Sydney N.S.
McCormack, Colin William MacCuaig, Duncan R. †McCulloch, Frank D	Renfrew Collegiate Inst. Williamstown High School. Moose Jaw Collegiate Inst.	Renfrew, Ont. Bainsville, Ont. 76 Hochelaga St. E.,
MacDonald, Alexander F	Alexandria High School	Moose Jaw, Sask. R.R. No. 2, Green- field. Ont.
†Macdonald, Anita Cecelia	. Duke of Connaught Sch	
Macdonald, Ronald W	Acadia Collegiate	Box 269, Campbellton, N.B.
Macdonald, William Alexander	r. Prince of Wales College	
McDonell, Eugene Donald	.Glen Nevis High School	Route 1, Box 3, Dalhousie Station, Que.
McIntosh, William T	To and ideas to	Unadal and IIIII One
McKenna, Philip D	St. Dunstan's University	Vernon Bridge, P.E.1.
MacKinnon' Hugh Neil MacLean, Kenneth Sheldon	Dalhousie University	Glace Bay, N.S. North Wiltshire, P.E.I.
McNally, Thomas Joseph	.St. Francis Xavier High School	Barachois, Gaspe Co., Que.
MacNaughton, Eric Alexander Malloy, John Dorian Mancuso, Ferdinand	.St. Michael's College .French Methodist Inst	Martintown, Ont. Blind River, Ont. 28 Victoria St., Montreal, Oue
Marcus, Simon	. Montreal High School	1074 St. Urbain St., Montreal, Que.
Meahan, Thomas Francis Melville, Kenneth Ivan		West Bathurst, N.B.

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Name	School Last Attended	Home Address
Menzies, Clifford Gordon	.Ottawa Collegiate Inst	130 Waverly St., Ottawa, Ont.
Miller, Noah	Montreal High School1	IA St. Famille St
Murphy, Francis Joseph Murray, Walter W	Ottawa College Provincial Normal School	Tweed, Ont. P.O. Box 407, St. Stephen, N.B.
Nathanson, Louis	. Sydney Academy	Sydney, N.S.
Nelligan, Lawrence P Northrup, Irwin	.Colgate University	St. Louis, P.E.I.
Paterson-Smith, Geoffrey N	. Lower Canada College	160 Windsor St., Montreal, Que.
Peacock, Henry Arthur	. Hamilton Collegiate	Herkimer St., Hamilton, Ont.
Pendleton, Raymond K Philpott, Newell Willard	. Hamilton Collegiate	Islesboro, Maine. 57 Mountain Ave., Hamilton, Ont
Podvoll, Samuel	. Montreal High School	50 Drolet St., Montreal, Que.
Pollock, James A Procter, Arthur Percival	. Finch High School	Berwick, Ont.
Puddicombe, John Francis H Pullar, William Christopher	.Ottawa Collegiate Inst .Queen's University	Heights, Vancouver, B.C. 410 Queen St., Ottawa
Ratner, Max	.Montreal High School	1774 Clarke St., Montreal, Que.
Redmond, Arthur Douglas Richardson, Charles F., Jr	.Iroquois High School .Montreal High School	Iroquois, Ont.
Roberts, Percie		
Robson, Wilmot Douglas	.Duke of Connaught High School.	1220 Boren Ave.,
Rothwell, John Cecil	.Carleton Place High Sch	Seattle, Wash. R.R. No. 1, Lanark,
Roy, Roland		Offawa
Savard, Joseph Albert  †Scheffer, Isidore	Sacred Heart College,	Blind River, Ont.
†Scheffer, Isidore	Montreal High School	83 Rivard St., Montreal, Que.
Scott, Robert Maxwell Silk, Claude Whitehall Silsby, Samuel S Silverman, Norman	University of B C	Wallaceburg, Ont. Penticton, B.C.
Smith, Clifford Bliss, B.A	. Montreal High School	.242 Clifton Ave., Montreal, Que.
Smith, Donald Socolow, Louis	Montreal High School	Winchester, Ont. 41 Drolet St., Montreal, Que. 49 St. Urbain St.,
†Steine, Ben Z	. Montreal High School	Montreal, Que. .819 University St., Montreal, Que.

Strapp, Gerald A	SCHOOL LAST ATTENDED	Home Address		
	Grace	Harbour Grace,		
Taylor, St. Elmo E		87 Lexington Ave.,		
†Teggart, Dorothy May	.Montreal High School	32 St. Luke St., Montreal Oue.		
Thaw, Daniel		315 St. Dominique St.		
Volpe, Emil Alfred	Ottawa Collegiate Inst St. Laurent Cellege Waterville High School	364 Villeneuve Ave.W. Montreal, Que. 332 Flora St., Ottawa. Lennoxville, Que. Waterville, Que. 805 Linden Ave.,		
Whiteside, William C	.Mt. Allison Academy	Victoria, B.C. 48 St. Famille St.,		
Winter, Jack Walter	Montreal High School	Montreal, Que. 1089 St. Urbain St.,		
Wittenburg, Abraham	. Montreal High School	Montreal, Que. 1512 Ontario St. E., Montreal, Que.		
Wright, John Andrew	C -1 - TY -1	m 1 D C		
York, Geoffrey Wilson B	Ottawa Collegiate Inst.	112 Strathcona Ave., Ottawa, Ont.		
SECOND YEAR				
Name	Street Address	CITY OR TOWN		
Abbott-Smith, George Wakely Ackerman, Charles Francis Acton, Jos. Henry Altmer, Harry Arthur Alward, Harold Cedric Amos, Edward Augustus Andrews, Everard Aloysius	.537 Cadieux St	Gananoque, Ont. Montreal, Que. St. John, N.B. Lachine, Que. Grenada, B.W.I.		

<sup>†</sup>Double Course.

Name	Street Address	CITY OR TOWN
Chalmers, Frank Burne. Chan, Qui Hin. Chisholm, Colin Angus Chisholm, Daniel Neil. Clarke, Austin M. Cleland, John George Paxton Clement, Hugh Wilfred.	Box 185	Antigonish, N.S.
Cohen, Jacob	566 St. Dominique St	Montreal, Que. Sth. West Margaree,
Coveler, Harry A Crocker, Willard Frederick. Cruikshank, John Merrill Curbelo, Pablo G. Curtis, Harry Croyle. Day, Edwin Ethelbert. Delahay, James Reginald. Dempsay, Gordon Roberts. Dobson, Joseph W.	231 St. Lawrence Blvd	Montreal, Que. Quincy, Mass. St. John West, N.B.
Curbelo, Pablo G. Curtis, Harry Croyle Day, Edwin Ethelbert Delyboy, James Reginald	Summerside	Somerset, Bermuda. Vancouver, B.C. Ottawa, Ont.
Dempsay, Gordon Roberts Dobson, Joseph W		Cochrane, New Ont. Hillsboro, Albert Co. N.B.
Donovan, George James Doubilet, Sydney Dowling, Fred. Vere Dragushan, Leon Draper, William Banford Draw William Robert	50 Suzanne St	Montreal, Que. New York, U.S.A.
Dragushan, Leon	Jackson St	Freehold, N.J. Alberton, P.E.I. Ottawa, Ont.
Eaton, George Outhit Elliott, James Munro Elliott, Spencer Graham	1138 Matthews Ave. Wesleyan College.	Truro, N.S. Vancouver, B.C. Montreal, Que.
Draper, William Banford Dyer, William Robert Eager, Richard Fred Eaton, George Outhit Elliott, James Munro Elliott, Spencer Graham Elvidge, Arthur Roland Emmons, William Frank Feigenbaum, Jacob	1125, 11th Avenue W 1281 St. Urbain St	Vancouver, B.C. Montreal, Que. Cumberland, Ont.
Finlay, Stanley Peter. Fisher, Frank Lemuel. Fitzmaurice, Lawrence Wylie.	1368 Hornby St	Vancouver, B.C. Truro, N.S. New Glasgow, N.S.
Forrest, James Robert. Forrester, Alexander Vaughan Forster, David Stewart.	2019 Hutchison St 1018 Amphion St 262 Decelles Ave	Montreal, Que. Vietoria, B.C. Montreal, Que.
Feigenbaum, Jacob. Feiguson, James Abner Finlay, Stanley Peter. Fisher, Frank Lemuel Fitzmaurice, Lawrence Wylie. Forrest, James Robert. Forrester, Alexander Vaughan Forster, David Stewart. Fox, George Liefferts Fraser, Jonald Scott. Fraser, Jonald Scott. Fraser, James Oliphant tFreedman, Joseph Gillander, E. W. Geddes, Aubrey Kent. Gincherman, Abie Ginsberg, Louis Glickman, Harry.	Box 520	New Glasgow, N.S. St. John's, Nfld. Lachine, Que.
Gillander, E. W. Geddes, Aubrey Kent Gineherman, Abie	Box 30	Bury, Que. Truro, N.S. Montreal, Que.
Goldman, Louis	. 1769 St. Lawrence Divd.	If an aboille Ont
Graham, Howard Carson Griffiths, James Jeffrey Gunn, William George Hainlen, Edgar Willis Hall, Edmund Brinton	221 Peel St 546 Broadway W	Montreal, Que. Vancouver, B.C. Lake Placid, N.Y.
Hall, Edmund Brinton	1461 St. Lawrence Blvd.	Bridgetown, N.S. Kaslo, B.C. Montreal, Que.
Hall, Edmund Brinton	1420 Fort St	Ottawa, Ont. Merigomish, N.S.

<sup>†</sup>Double Course.

		CITY OR TOWN
Name	Street Address	
		Solisbury N B
Henry, John Stewart		. Salisbury, IV.D.
Honry Reginald Barrett		. Halliax, N.S.
TI'll Mishalas Dangell	361 Kensington Ave	Westmount, Que.
filli, Nicholas I alseli	10¢ Lorrig St	Ottawa, Ont.
Hilton, George E. M	120 Dewis Deine	Victoria BC
Holmes, Thomas Carlyle	.1472 Beach Drive	. Victoria, B.O.
Holt Charles Robert		Westport, Essex Co.,
Hole, Charles Hobert		N.Y.
Hope, John Donaldson Hosang, Samuel Alfred Baldwi		Lachute, Que.
Hope, John Donaldson	-0.37 GI	Port of Spain
Hosang, Samuel Alfred Baldwi	n 50 New St	T-:-: Jad D W I
Hume, William Edward Johnson, Francis Bell		Trinidad, B.W.I.
Huma William Edward	24 Montreal St	Sherbrooke.
nume, wimain Edward	9272 St. Urbain St	Montreal, Que.
Johnson, Francis Bell	2515 Dt. CIDAM Dt	Soperton Ont
Johnson, Hobart Whitney		Athens Ont
Johnson, Hobart Whitney Johnston, Douglas Butterwort *Jones, Cyprian Chandler	h	. Athens, Ont.
*Iones Cymrian Chandler	$\operatorname{Woodford} \operatorname{Road} \ldots \ldots$	Gordon Town P.U.,
*Jones, Cyprian Changler		Jamaica, B.W.I.
*Jones, Cyprian Chandler  Jones, Thomas Meredith  Kaufman, Morris Ralph  †Kay, Edwin	100 James Pland	Victoria B.C.
Jones, Thomas Meredith	100 Jones Diva	Mantreel Oue
Kanfman, Morris Ralph	1843 Clarke St	. Montreat, Que
+Koy Edwin	637 St. André St	Montreal, Que.
†Kay, Edwin Keddy, Alfred Russell		. Hemmingford, Que.
Keddy, Alfred Russell		Buckingham, Que.
Kelly, Edward P		Charlottetown P.E.I.
Kelly, Frederick Gerard	130 Fitzroy St	Charlottetown, 1 13.2.
Kolly William Moore		Huntingdon, Que.
ATT Jos William Doland	433 Mance St	. Montreal, Que.
Kennedy, William Roland.	110 Woodlown Ave	Toneka, Kans.
Keddy, Alfred Russell Kelly, Edward P. Kelly, Frederick Gerard Kelly, William Moore †Kennedy, William Roland Kitchell, Mary Virginia Klineberg, Otto	112 Woodiawn Ave	Montreel One
Klineberg, Otto		. Montreat, Que.
Korenberg Samuel	85 Suzanne St	Montreal, Que.
17t- Alfred Edward	424 Oueen St	. Ottawa, Ont.
Klineberg, Otto Korenberg, Samuel Kuntz, Alfred Edward Lane, John Joseph Lanthier, John Cecil	122 Webster St	Haverhill, Mass.
Lane, John Joseph	. 155 Webster St.	Montreal Oue
Lanthier, John Cecil	1179 Cote St. Antoine Ro	1. Montreal, Que.
Lanthier, John Cecil Lantz, Joseph Pulsifer		Charlottetown, I.E.I.
Lawson, John Walter		Eganville, Ont.
Lawson, John Walter  Lax, Abel  LaZerte, Leonard Clarence.  Leech, Beverley Charles  Levy, John  Lindeau, John Rolston		Hawkesbury, Ont.
Lax, Abel	D D N- 0	Iroquois Ont.
LaZerte, Leonard Clarence	R.R. No. 2	1 Deemden Men
Leech, Beverley Charles	315 McCallum, & Hill Blo	ig Brandon, Man.
Lovy John	204 Park Ave	Montreal, Que.
Levy, John Lindsay, John Ralston Little, Lawrence Peniston Lynn, Leo J  North April 1987		Glasgow Sta., Ont.
Lindsay, John Raiston	ont Maland St	Ottawa, Ont.
Little, Lawrence Peniston	201 McLeod St	Cholege Mass
Lvnn, Leo J	16 Lambert Ave	Cheisea, mass.
McBride William Haskett.		Carp, Ont.
Lynn, Leo J. McBride, William Haskett. MacDermid, Lynden Elwood MacDermot, Pembroke Noe.		Martintown, Ont.
MacDelling, Lynden Liwood	00 St Matthew St	Montreal, Que.
MacDermot, Pembroke Noe. MacDonald, Aeldred Alexand	190 St. Matthew St	Hayre an Boucher.
MacDonald, Aeldred Alexand	ier	N.S.
		T 1. Mill. N. C
Macdonald, Daniel A Macdonald, Donald Andrew.		Fraser's Mills, N.S.
Mandanald Donald Andrew	1929 Scarth St	Regina. Sask.
McElligott, Dominic C	1020 000101	Eganville, Ont.
McElligott, Dominic C		Antigonish, N.S.
McElligott, Dominic C MacGillivray, Donald Joseph McGinn, William John	1	March Wiltebiro
McGinn, William John,		North whtsime,
1120 0 21111		P.E.I.
M.C. Dougles Uranhar	· t	Waterdown, Ont.
McGregor, Douglas Orquital	0	Cornwall, Ont.
McGuire, John A	204 35 / 16 C4	Ottown Ont
McGregor, Douglas Urquhar McGuire, John A †McIntosh, Clarence Alexand MacKeen, Robert Arthur H	er 331 Metcane St	Ottawa, Onc.
MacKeen Robert Arthur H	386 Sherbrooke St. W	Montreal, Que.
MacKeen, Robert Arthur H †McKinnon, James Donald McLauchlin, Lucien Gould McLean, Ernest Matthew		Sudbury, Ont.
M-Tanablin Tuoion Could		Truro, N.S.
McLauchin, Lucien Gould	01 72-1-2-1- 04	Port of Spain.
McLean, Ernest Matthew	31 Frederick St	Trinidad, B.W.I.
		Triniuau, D. W.L.
McLellan, Allister Matheson		I atamagouche, N.S.
McLellan, Allister Matheson McLeod, Charles Edward		Grace Day, Cape
McLeod, Charles Edward		Breton, N.S.
4 C B		Skowbegan Maine
McQuillan, Arthur H		TT C A
7 m 9		U.S.A.

<sup>\*</sup>Partial. †Double Course.

Name	STREET ADDRESS	CITY OR TOWN
McVey, John Aloysius	.187 Clemow Ave	Ottawa, Ont.
Major, Emile Joseph Sylvam	.12 Friel St	Ottawa, Ont.
Major, Emile Joseph Sylvain. Marcotte, Edward G. Marsh, John Paul	.20 Jackson St	Ouches Ouc
Marsh, John Paul	.620 Grand Allee	Westmount Oue
Massie, Redvers Albert	279 Arthur St	Port Arthur Ont
Middleton Lyall Archibald	.5/2 AI (But Dt	Lachute Mills, Que.
+Mirely Samuel	359 Cumberland St	Ottawa, Ont.
Marsh, John Paul. Massie, Redvers Albert. Matthews, Gordon Oliver. Middleton, Lyall Archibald. †Mirsky, Samuel. Mooney, Fraser Dudley. Morgan, George Senkler. Morris, Geoffrey Marshall. Morris, George Douglas. Morrisys, Richard Herbert.		Stellarton, N.S.
Morgan, George Senkler	.4173 Western Ave	. Westmount, Que.
Morris, Geoffrey Marshall		. Windsor, N.S.
Morris, George Douglas	.80 Askin St'	. London, Ont.
Morrissy, Richard Herbert †Murray, David Fraser Nash, Arthur B		Newcastle, N.B.
†Murray, David Fraser	.186 Joseph St	Vietoria, B.C.
Nash, Arthur B	.1005 Pemberton Road	Vietoria, B.C.
Nalson, Julius Nelson, Julius Noonan, Wilfrid James V Olmsted, John Gerald Maurice Patterson, James Duke	.92 Bagg Ave.,	Montreal, Que.
Noonan, Wilfrid James V	.b40 Newport Ave	Appeter Ont
Olmsted, John Gerald Maurice	4040 Dorobostor St	Westmount Oue
Petersen, Swara Elias. Phillips, Reginald Osmond	28 Mitchell Ave	Toronto, Ont.
Phillips Reginald Osmond	15 Arnold Road	Kingston, Jamaica.
Pinhey John Wolfenden		Hudson Heights, Que.
Pope. Charles Leslie		. Richmond, Que.
Pinhey, John Wolfenden Pope, Charles Leslie Porter, Donald Francis Wayla	ndWestmorland St	. Fredericton, e. N.B.
Presner Jack Connie	. 1497 OL. UTDAIN OL	. Montreal, Que.
Pretty, Henry Gurth	.141 Hunter St. E	. Peterboro, Ont.
Pretty, Henry Gurth	.143 Nepean St	. Ottawa, Ont.
t Rabinovitch, Jacob	. 213 Laval Ave	. Montreal, Que.
Rabinovitch, Phineas Ramjohn, Mohamed Rahaman	.213 Lavai Ave	Sen Fornando
Ramjonn, Monamed Ranaman	Cipiro St	Trinidad, B.W.I.
Ramsay, Clyde Neville Reid, Herbert Gordon		Montelair, N.J.
Reid. Herbert Gordon	207 Devon Court,	
	Broadway St.	Winnipeg, Man.
†Richardson, Eric Carleton	653 Durocher Ave	. Outremont, Que.
Rivenovich, Louis Rivenovitch, Samuel	1877 St. Urbain St	. Montreal, Que.
Rivenovitch, Samuel	.977 St. Catherine St. E.	Tetamogoughe N S
Roach, Robert Dickson Roberts, George Arthur C	9050 44b Assense F	Vorcenyer R C
Roberts, George Arthur C	2.11/2 South Park St	Halifax N S
Roberts, George Arthur C Robertson, James Ritchie Roche, Laurence Elmore	27 Park Ave	Ottawa, Ont.
Ross Hugh Graham	. 414 Bourgeois St	Montreal, Que.
Ross, James B. Rowan, Arthur Alex	414 Bourgeois St	Montreal, Que.
Rowan, Arthur Alex	Rowan Place (off Kenne	$\mathrm{d}\mathbf{y}$
	Street	. St. John, N.B.
Roy, Howard J	. 111 Market St	Amesbury, Mass.
Rusofsky, Harry Ryan, Joseph James, B.A.	604a Henri Julien Ave	Montreal, Que.
†Schleifstein, Joseph Isaac	1010 St. Urbain St	Montreal One
Soral Renigmin Wolf	136a Drolet St	Montreal Que.
Senecal, Jos. George	. Tota Droiet St	. St. Cesaire, Que.
Shorman Coorgo Alayander		Scotstown One.
Simpson, Harold Leslie		. Springhill, N.S.
Simpson, Jeremiah Claude		Bay View Mills, P.E.L.
Simpson, Harold Leslie Simpson, Jeremiah Claude Skeet, Harold James	. 4 Meredyth Road	Barnes, S.W.13,
Cl. Harr All and James	506 O'Connor St	Surrey, England.
Slove Ambrose Victor	O Connor St	Vinton, Oue.
Smallman, Ralph Reniamin		Wolfville, N.S.
Skelley, Albert James Sloan, Ambrose Victor Smallman, Ralph Benjamin Smith, Bruce Taylor	246 Oxford St. W	Moose Jaw, Sask.
Stalker, Murray Raymond		Richmond, Que.
•		

Name	STREET ADDRESS	CITY OR TOWN
Stewart, Jack I	R.R. No. 1	Kinburn, Ont. Ottawa, Ont. St. John, N.B. Clarendon, Jamaica,
Taylor, Eric Owen. †Teitelbaum, Michael. Terry, Kingsley. Tinkess, Donald E. Thompson, Clifford Shaw. Thompson, Wendell William. Thurber, Donald Stuart. Tidmarsh, Clarence Johnson, B Trites, Albert Edward. Turpel, William Nicholson. Urmston, Elizabeth.	A 2551 Quadra St 1415 Wilson Ave	Point La Nim, N.B. Millerton, N.B. Char ottetown, P.E.I. Salisbury, N.B. Victoria, B.C. So. Pasadena, Calif.,
Urquhart, Robert Glen Vallieres, Joseph Leon †Vineberg, Norman M. Wade, Robert Simpson. Walker, Douglas William. Walsh, Ronald Joseph Ward, Peter Dennis. Ward, Richard Vance. Webster, Bruce Peck Webster, Leith Hıllman. Weir, George Wesley. White, George M. Wilson, George Andrew. Wiggins, Regınald Heber. Wight, George Earle †Wolepor, Benjamin. Wood, Ralph Peirce. Zinck, Russell Clark. †Zuckerman, Joshua.		Montreal, Que, Sydney, N.S. Montreal, Que. Montreal, Que. Lansdowne, Ont. Marie, P.E.I. Trail, B.C. Marysville, N.B.
	THIRD YEAR	
Acker, John Christopher Ackman, Frederic Douglas. Anglin, Ives Maurice. Apps, Carl O Aylward, Gerald Fitzgerald. Ballon, Harry Clarence. Blumenfeld, Edward Alexand Boon, George Arthur Boyle, Ernest Stirling. Britton, Sydney William.	177 Botsford St. 908 St. Charles St. 255 Bishop St. er 1013 Clarke St. 16 Guillaume St	St. John, N.B. Brantford, Ont Victoria, B.C. Montreal, Que. Montreal, Que. Longueuil, Que Wallace, N.S. Barnstaple, Devon,
Buckley, Francis Joseph Bulger, Craig D Burke, Hugh Edmund		Gloucester Jct., N.B. Eganville, Ont. Little Metis Beach,
Campbell, S. Hardie	. c'o Sir M. P. Cashin R. R. No. 2 1772 McSpadden St . 69 Clarendon St . 33 Melgund Ave . 2406, 5th Avenue W.	Chesley, Ont. St. John's, Nfld Lachute, Que. Vancouver, B.C.

Name	Street Address	CITY OR TOWN
Davidson, Walter McDonald. Dawson, Martin Henry. Demaray, John Franklin. Dowd, Kenneth Eardley. DuBerger, René L., B.A. Duncan, Garfield George. Duskes, Enile. Ein, William. Elder, Herbert Munro.		Newton, Ont.
Dawson, Martin Henry		Truro, N.S.
Demaray, John Franklin		Forest, Ont.
Dowd, Kenneth Eardley	13 Third Avenue	Ottawa, Ont.
DuBerger, René L., B.A	118 King St. W	Sherbrooke, Que.
Duncan, Garneld George	.R.R. No. 2	Billing's Bridge, Ont.
Duskes, Emile	.93 Pine Ave. E.,	Montreal, Que.
Elder Herbert Murro	"The Linter " 721 Sher	Glace Bay, N.S.
Elder, Herbert Mulio	brooks St W	Montroel Oue
Elderkin Robert Ewart	brooke bt. W	Wolfville N S
Enzer, Norbert	229 Esplanade Ave	Montreal Que
Elderkin, Robert Ewart Enzer, Norbert †Ereaux, Lemuel Price	.463 Elm Ave	Westmount, One.
tEverett, Herbert Stewart Fegen, Solomon Feldman, Jacob		St. Andrew's, N.B.
Fegen, Solomon	12 Marlborough St	Montreal, Que.
Feldman, Jacob	.996 Cadieux St	Montreal, Que.
Foster, Joseph Graeme Fraser, William Allan	.443 McLaren St	Ottawa, Ont.
rraser, william Allan	. Rockland Ave. and St.	Vi-ti- D.C
†Freedmar, Newman Barnett. Geshelin, Harry Israel. Gibbins, Emma Culross.	Charles St	Montanal Out
Geshelin Harry Israel	9533 19th Avenue	Porine Seek
Gibbins Emma Culross	1599 Highland Ave	Rochester N V
Gold, Solomon	273 Laval Ave	Montreal One.
Goldman, Ephraim J	.816 Almond St	Syracuse, N.Y.
Gruber, Arthur Saul	.148 Laurier Ave	Montreal, Que.
Hamilton, Ronald Lorne	. 8 Waterloo Place	London, England.
Harwood, William Liddell	2064 Hutchison St	Montreal, Que.
Goldberg, Louis Goldberg, Louis Goldbern, Arthur Saul Hamilton, Ronald Lorne Harwood, William Liddell Hay, James Cecil Heller, Harold S.	119 Honri Julian Assa	Victoria, B.C.
Jackman, Leo J Jardine, Ingham Wright	45 Springdale St	St. John's Nfld.
Jardine, Ingham Wright		Kensington, P.E.I.
Jessup, Horace Sthier		Ladysmith, B.C
Kearns, Hubert John Kearns, Walter Patrick		Chesterville, Ont.
Kearns, Walter Patrick		Chesterville, Ont.
Knowlton, Henry Corey	10 Transla Asses	Guilford, Me.
tKnowlton, Henry Corey Koster, Basil McDonnell Kutzman, Nathaniel.	1557 St. Lawrence Dlad	Montreal One
Lamoy Lester Thomas	. 1557 St. Lawrence Divd	Angable Forks N V
Lewis, Mortimer H	520 Plant St	Utica, N.Y.
Logan, Herl ert L	120 Chesley St	St. John, N.B
†McClure, James Carswell		Cowansville, Que.
Lamoy, Lester Thomas. Lewis, Mortimer H. Logan, Herl-ert L. †McClure, James Carswell McDonald, Claude Augustine.	.201 Agnes St	New Westminster,
McDonald, Ronald Joseph		T) C
McGill, C. Sherlock. McGrand, Frederic Addison McGregor, Douglas Urquhart. MacIntosh, Donald Smith Mac Lean, Chester P		B.C. Shellurne N.S
McGrand Frederic Addison	Mouth of Keswick	Vork Co N B
McGregor, Douglas Uranhart	Modell of Reswirk	Waterdown, Ont.
MacIntosh, Donald Smith		West River, N.S.
Mac Lean, Chester P	417 Mance St	Montreal, Que.
McLean, Daniel Irving.		Charlottetown, P.E.I.
McPhail, Walter N		Drummond, Montana.
Maillard Edgar Randolph	1 Frederick St.	Trinidad R W I
McPail, Valter N McPhail, Walter N Mader, Victor Owen Maillard, Edgar Randolph Mair, Harold U	T Frederick St	Chesley Ont
Marcovitch, Joseph	55 Colonial Ave	Montreal, Que.
Marcus, David	1074 St. Urbain St.	Montreal, Que.
Markovitz, Max	13 Church St	Montreal, Que.
Mair, Harold U Marcovitch, Joseph Mareus, David Markovitz, Max Marks, Moses Isaac	.173 Colonial Ave	Montreal, Que.

Name	Street Address	CITY OR TOWN
Massé, Norman	548 St. Denis St	Montreal, Que.
Mitaball Computed Localic	207 Donales Ave	St John N B
Moodie, George Earl	007 ME Cu	Otter Lake, Que.
Moodie, George Earl	307 Morris St	Brownsburg Oue
Porlow Allen Leurence	411 McLaren St	Ottawa Ont
Parsons Lecti J. C.		marbour Grace, Mad.
tPetersen, James Norman	1214a Des Erables St	. Montreal, Que.
Petrie Edward Archibald	3 Leonard Ave	. Ottawa. Ont.
Quinn, John Gladstone	352 Nepean St	.Ottawa, Ont.
Rafolovitch, Moses Jacob	29 Park Avenue	. Montreal, Que.
Robertson, James Ritchie Robillard, Antoine Benjamin.	Abboteford House	Abbotsford Oue
Pobillard Matthew Joseph	195 Nicholas St.	Ottawa, Ont.
Rosenbaum, Wilfred Rubenstein, Charles S Rubin, Saul	475 St. James St	. Montreal, Que.
Rubenstein, Charles S	1000 Orange St	.Syracuse, N.Y.
Rubin, Saul	213 Murray St	. Montreal, Que.
Rutenberg, Leo	1008 St. Urbain St	. Montreal, Que.
Scharfe, Ernest E	R. R. No. I	Socketoon Sock
Rutenberg, Leo Scharfe, Ernest E. Schiltz, Frances Helen Schultz, Charles	101 Colonial Ave	Montreal Oue
Schurman Charles Good	si Colomai Ave	Wolfville, N.S.
Schurman, Charles Good Selzer, Julius Shaver, Frank W	1702 Clay Ave	. New York City
Shaver, Frank W	327 West Hill	. Montreal, Que.
Sheets, Cecil Clarence Sheret, Andrew William	<u>.</u> <u>.</u>	. Massena, N.Y.
Sheret, Andrew William	646 Gorge Road	. Victoria, B.C.
Silver, Philip George Silverberg, Arvid C Skinner, George Ferguson	459 Mt. Pleasant Ave	. Westmount, Que.
Silverberg, Arvid C	178 Ougen St	St John N R
Skinner William Kerr	823 University St.	Montreal Que.
Skinner, William Kerr Smith, Herbert Gordon	205 Rockland Road	.St. John, N.B.
Smith John Walter		. Lachute. Que.
Smith Walton Harold Young	294 Lvon St	. Ottawa. Ont.
Somerville, Wallace Bertram.		Bristol, N.B.
Spiro, Charles	• • • • • • • • • • • • • • • • • • • •	Thombill Man
Sweet, Arthur Henry, B.Sc †Tarshis, Anny	187 Bloomfield Ave	Outrement, Que.
Thompson, Hugh Herbert. †Vaughan, James M. Wallace, Frank Wilbert. Watson, Charles Arthur. Waxman, Abe.	. 105 Lorraine Ave	Mt. Vernon, N.Y.
Wallace, Frank Wilbert	P.O. Box 622	. Nelson, B.C.
Watson, Charles Arthur	1157 Rockland Ave	. Victoria, B.C.
Waxman, Abe		. Montreal, Que.
Waxman, Abe	Willow Ave	. Westmount, Que.
Cameron	. 160 Cooper St	Ottawa, Ont.
Wilkie, Archibald Leslie		. Antigonish, N.S.
Whitley, Harry Thomas Cameron Wilkie, Archibald Leslie Wilson, George Andrew	R.R. No. 2	Kars, Ont.
	FOURTH YEAR	
Adams, Earl Hay Allen, Harold McClellan Archibald, William Charles		. Pointe Claire, Que.
Allen, Harold McClellan	108 Carlton St	Toronto, Ont.
Archibald, William Charles		Wolfville, N.S.
Arthur, Wilfrid Stewart Bassen, Edward Joseph	OFI Tring CA Track	Sudbury, Ont.
Bassen, Laward Joseph	105 Union St	St. John N.B.
Baxter, Joseph Murray Beall, Franklin George	327 Roslyn Ave	. Westmount, Que.
Behan, Edmund Joseph		.Pembroke, Ont.
Benjamin, Ben	455 Clarke St	. Montreal, Que.
Behan, Edmund Joseph Benjamin, Ben Blampin, Winifred Alice Bourret, Reggie	318 Sherbrooke St. W	. Montreal, Que.
Bourret, Reggie Boyd, Jessie Marion	4952 Dorobortor St	Westmount Oue
Doya, Jessie Marion	Dolubester St	ii catmount, Gue.

<sup>†</sup>Double Course.

Name	Street Address	CITY OR TOWN
Breitman, Harry B Brouse, Ivan Edwin Browne, Treyor Goff	273 Laval Ave	Montreal, Que. Vancouver, B.C. Melville, Sask.
Buckman, Charles Bussière, Henry Charles Carseellan, William Frankli	174 Laval Ave	Montreal, Que. Montreal, Que. Edmonton. Alta.
Chasney, William	1047 Aberdeen Ave 129 Bishop St	. Winnipeg, Man. . Montreal, Que. Kamsack, Sask.
Coler, Eugene Seeley	149 Drummond St 39 Division Ave	Montreal, Que. Medicine Hat, Alta. Cornwall, Ont.
Copeland, Newall		Cornwall, Ont. Fort Saskatchewan,
Davis, Aaron	32 Notre Dame St	Lachine, Que. Perdue, Sask. St. John, N.B.
Emery, Edward Douglas	1058 City Hall Ave	Montreal Oue.
Field, Thomas Harold Fitzgerald, Ralph Richard	5610 Jasper Ave 46 Lorraine Apts	Edmonton, Alta. Calgary, Alta. Kenogami, Oue.
Fox, Charles B	400 Wilson Avro	St. John's, Nfid. Cornwall, Ont.
Gold, Moses Israel	792 City Hall Avenue 208 Bay St	Montreal, Que. Ottawa, Ont. Paradise, Montserrat.
Criffith Harold Bandall 1	B.A221 Peel St	Montreal, Oue.
Cunderson Christian Vals		Dickson, Alfa.
Hart, Henry Harper, B.A. Henry, Charles Blanchard Howe, Harland Fallis	757 Upper Lansdowne A	Palmerston, Ont.
Hynes, John Story		Renfroy Ont
	. 631 Vietoria Ave	
Inhanton L'onnoth Dunne	102 St Mork St	Montreal One
Katzman, Harold Kemp, William Norman Kibzey, Ambrose T Kinsman, James Murray	er. Shanghai Municipal Council. 1202 Neilson St. 3530, 7th Ave. N. P.O. Box 3626 Station B	Utica, N.Y. Vancouver, B.C. Winnipeg Man. Centreville, Kings Co. N.S.
Klein, David Koster, Basil McDonnell. Laishley, Wilfrid	180 St. Joseph Blvd. W. 19 Hewitt Ave	Montreel Oue
Levin, Tom. Livshin, Norman Logan, Patrick Eugene.	19 Hewitt Ave	. Montreal, Que. . Syracuse, N.Y. . Edmonton, Alta.
	e	

<sup>\*</sup>Partial.

Name	STREET ADDRESS	City or Town
McDonald, Hugh Reid		Newton, Ont.
McDonald, John		warren, Ont.
McGregor John	Belmont Blvd	Victoria, B.C.
McIntosh, John Forbes		Westfield Beach,_
		King's Co., N.B.
MacLellan, Donald Francis		. Glenville, N.S.
McLeod Ewen Cameron		. Plenty, Sask.
MacMillan, Douglas W McNabb, Atholl Munro		Rome, N.Y.
McNabb, Atholl Munro	.447 McLeod St	Ottawa, Ont.
McNamee, Francis Patrick	.959 Balmoral Road	. Montreal, Que.
Messinger, Moses Joseph	.1627 St. Dominique St	. Victoria, B.C.
Millar, Edward James		. Calgary, Alta.
Miller, G. Gavin		Berwick, N.S.
Mills, Edward S.		.Ormstown, Que.
Morgan, Phillip John George		
Naud, Henry Joseph	Th 020	Cobolt Ont
O'Shaughnessy, Peter Earle		
Parke, George Kenneth		Woodstook Ont
Parker, Joseph Alex	D.D. N. 1	Edmonton 11to
Pearse, Harry Albridge	1201 Casons Ave. Ant 8	Westmount Oue
Pereival, Eleanor Susan, B.A Redel, Walter A	. 1581 Greene Ave., Apt. 6.	Consort Alta
Reinhorn, Charles Gabriel	7495 Sackatahowan Drive	Edmonton Alta
Robertson, George Henry	. 1425 Saskatellewan Dilve	Falmouth Jamaica
Robertson, George Henry		B.W.I.
Rose, William Harold		Morrisburg, Ont.
Rosenfeld Joseph E.		Battle Creek, Mich.
Ross, Alexander Grant	74 Morris St	Halifax, N.S.
Rothschild David	4876 Sherbrooke St	. Westmount, Que.
Ryan, John Thomas	214 Glencoe St	Montreal West, Que.
Schmidt, Otto Victor	.4095 Tupper St	Westmount, Que.
Service, Stanley Frederick	.Suite 4, Rossmore Apts	. Calgary, Alta.
Shapiro, Charles Engleson	.477 Wellington St	Ottawa, Ont.
Sharp Harold Haves		Sussex, N.B.
Stenson, Walter Thomas, B.A	.3 Fulton Ave	. Sherbrooke, Que.
Summers, Russel Arthur	.1614 Mance St	. Montreal, Que.
Usher, Barney David	.382 Metcalfe Ave	. Westmount, Que.
Watson, Edgar Robert	.P.O. Box 85	. Hawkesbury, Ont.
Wells, Thomas James		. Rock Island, Que.
Wershof, Stanley Mendel	. 9515, 101 Avenue	Edmonton, Alta.
Whitebread, John		. Nelson, B.C.
Wilkin, Wyllie Ivan		Dinfield, Ont.
Wittenberg, Samuel Simon	.1512 Ontario St. E	Montreal, Que.
Young, George Franklin	R.F.D. No. 4	. Bothwell, Ont.

### FIFTH YEAR

Aarons, Morton Joseph510 Madison St	Syracuse, N.Y.
Almond, Walter W	Altario, Alta.
Armour, John CampbellR.R. No. 3	Perth, Ont.
Beamish, Oswald Foster 285 Fifth Ave	Ottawa, Ont.
Bell, Everett Hard	
Bernstein, Felix, B.A	Montreal, Que.
Bolt, WilliamQueen's Road	St. John's, Nfld.
Bristol, John LeVarrie	Grenada, B.W.I.
Caldwell, Alexander Lorne	
Candlish, Henry Maiben784 Wilder Ave	Outremont, Que.
Cassidy, Gordon James68 Durocher St	Montreal, Que.
Chandler, Edward Bremner26 Botsford St	
Cooder, Howard Russell 201 Esplanade Ave	Montreal, Que.
Corbett, John Robert11219, 77th Ave	Edmonton, Alta.
Crewson, Walter Lionel	
Cully, James H	Pembroke, Ont.
Daley, Mark Joseph 47 Jay St	Albany, N.Y.

Name	Street Address	CITY OR TOWN
Dawson Howard LaRossi	ignol21 Bellevue Ave	Westmount One
Dorrance Wallace John	76 McLean Block	Edmonton Alta
DuVernet Edward Oliver	s	Digby N S
E-lie William Wilson	10 Ingleside Arre	Westmount Oue
Estadam Wilson	00 I areal St	Unil One
raiardeau, Adelard	99 Lavai St	Ouches Ouc
Eliasoph, Benjamin	010 Chillend C4	Quebec, Que.
Emerson, C. Leonard	219 Guillord St	Mostowe Ont
Fink, Charles Telesphore.	2010 441 C44 NTW	Cultures Alea
Fish, Frank Hamilton	3219, 4th Street, N.W	Caigary, Alta.
Fournier, Dudley	740 C'4 TT-11 A	Sudbury, Ont.
Freedman, Morris	149a City Hall Ave	Montreal, Que.
Gaboury, Hector		Alired, Ont.
Grant, Joseph Howe Brow	nell	. Port Eigin, N.B.
Greenberg, Moses	200 Cartier Square	Montreal, Que.
Gross, Harry S	239 Pine Ave., W	Montreal, Que.
Harkin, George Herbert		Vankleek Hill, Ont.
Hawthorne, Allan Blackal	1316 Grosvenor Ave	Westmount, Que.
Heinbecker, Peter		. Listowel, Ont.
Henderson, Egbert F	162 Prospect St	Hamilton, Ont.
Holling, Stanley Arnold, 1	3.A122 Fourth Ave	Ottawa, Ont.
Hooper, Harold Smith	239 Pine Ave. W.  1	Brownsburg, Que.
Hornbeck, Charles Sahler	37 Wall Street	Kingston, N.Y.
Humphreys, John Charles		Kinburn, Ont.
Hutchison, Keith Ogilvie.	354 MacKay St	Montreal, Que.
Jamieson, Wm. Dawson St	tuart	Clapham, Que.
Jones, Francis Edward	104 Henderson Ave	Ottawa, Ont.
Kearns, P. J.	129 Fourth Ave	Ottawa, Ont.
Keeping, B. C		Murray Harbour,
•		DEI
Kenning, Stuart Guthrie.	1503 Belcher St	Victoria, B.C.
Kinsman, Reginald Price.		Waterville, King's Co.
		N C
Lally, Louis Michael John	312 Chapel St	. Ottawa, Ont.
Lande, Joseph	1960 Jeanne Mance St	Montreal. Que.
Landor, R. D	617 Fulton Road	. Canton, Ohio.
Lapp. Victor R.	617 Fulton Road R.R. No. 5	Cobourg. Ont.
Levitt Abel		North Bay Ont.
*Lindsay, Ashley Woodwa	rd10,730, 81st Ave	Chengtu Sze. China.
Lockhart James B		Bristol, N.B.
McBride Clifford D	10.730. 81st Ave	S. Edmonton, Alta.
McCaffrey, Lawrence Edw	vard	Ormstown, Que.
McGillivray Alexander		
	R.R. No. 1	Dalkeith, Ont.
McIntyre Preston		Montague, P.E.I.
McKee William Boyd		Rossburn Man.
Malamud William	1508 Esplanade Ave	Montreal Que
Malo Robert Florent	1000 Espianace III c	Sudbury Ont.
Manning Clinton Edgar	. 1508 Esplanade Ave	Magog One
Mannlahack Thomas Frie	1.13 Metcelfe St	Montreal Que
Moret Harman	149 Metcane St	Sion Volnis
Moret, Herman		Switzerland.
Mulloy John Knov		Wetaskiwin Alta
Murray John Stowert		River John N.S.
Officeh Kancon	444 Lagauchetiere St. E.	Montreal One
Orobko John	444 Lagauenetiere St. E.	Chamberlain Sack
Polmor John Hammond		Caretown N B
Paradia Charles O		Reseaser Wich
Parling Capald Ad-	000 Ilminopolita Ct	Montreel Oue
Parkins, Gerald Adams	828 University St.	Marianniah N.S.
Patterson, Robert Earl	CO Mandata - Luna C4	Merigomish, N.O.
Penarian Kobert Militray	69 Mecklenburg St	St. John, N.D.
rorter, william Arthur		Laimouui, 14.6.

<sup>&</sup>quot;Partial.

NAME	STREET ADDRESS	
Ross, F. Dudley E. Ryan, Eric James. Sanders, Joseph Leonard Scherzer, Morris Scott, John William. Scriver, Walter de Mouil Silverman, Benjamin. Smith, Ebenezer Knox. Smith, Herbert Bryant Smith, James Wallace He Stewart, Charles Conach Strasberg, Alex.	ond 7 Bishop St  B.A 195 Nicholas St  A	Lucan, Ont. Montreal, Que. Westmount, Que. Ottawa, Ont. Montreal, Que. Edmonton, Alta. Westmount, Que. Montreal, Que. Knoxville, Tenn. Gloversville, N.Y. St. Thomas, Ont. Perth. Scotland. Montreal, Que. Montreal, Que. Vernon, B.C. Geergetown,
Thompson, Gordon Edwa Trefry, Harold Scott Tremble, George Edward Valentine, John Baptist Walters, Lawrence John Walton, Roy Atkinson Whitcomb, Harold Austin Whiting, Harry St. John Wilson, Percy Willfon	10,736, 108th Street  1. 423 Grosvenor Ave 145 Besserer St 7 Sophia St  127 Abbott Ave 628, 12th Ave. E R 11,828, 94th Street	British Guiana Edmonion, Alta Yarmouth, N.S Westmount, Que. Ottawa, Ont Ottawa, Ont Fort Saskatchewan, . Alta Smith's Falls, Ont Westmount, Que.

# DEPARTMENT OF PHARMACY

Armstrong, Gordon Denis539 Grand Trunk St Point St. Charles,
Bartlett, Albert E. 731 Shuter St. Montreal, Que. Bennett, Moe. 1006 St. Urbain St. Montreal, Que. Boness, Jacob. 22a Dulath Ave. W. Montreal, Que. Cartier, James F. 14 Fort St. Montreal, Que. Clark, Horace H. 1077 Bernard Ave. Lennoxville, Que. Cloutier, Elfird B. 41 McGill College Ave.
Cohen, Nathan.  Apt. 12.  Montreal, Que.  494 Clarke St.  Montreal, Que.  494 Clarke St.  Montreal, Que.  494 Clarke St.  Montreal, Que.  494 Clarke St.  Montreal, Que.  494 Clarke St.  Montreal, Que.  Westmount, Que.  494 Vellington St.  Montreal, Que.  494 Vellington St.  Montreal, Que.  494 Vellington St.  Montreal, Que.  494 Vellington St.  Montreal, Que.  494 Vellington St.  Montreal, Que.  494 Vellington St.  Montreal, Que.  495 Vellington St.  Montreal, Que.  496 Vellington St.  Montreal, Que.  497 Vellington St.  Montreal, Que.  498 Montreal, Que.  499 Vellington St.  Montreal, Que.  499 Vellington St.  Montreal, Que.  490 Prince Arthur St.  Montreal, Que.  490 Montreal
Lyons, Clarence Owen. 271 Sherbrooke St. W. Montreal, Que. Lyons, Robert H. 271 Sherbrooke St. W. Montreal, Que.

NAME	Street Address	CITY OR TOWN
Maynard, Henry George.	2668 Mance St	Montreal, Que.
Musgrove, Anme	.338 Moreau St	Hochelaga, Que.
Neamtan, Jessie	1337 St. Lawrence St	Montreal, Que.
Ostro, H. H		
Pehleman, C. Alexander	.816 Shuter St.	Montréal, Qué.
Schacher, Dorothy	846 Cadieux St	Montreal, Que.
Selsky, David	184 Laval Ave	Montreal, Que.
Shuman, Lionel.	.1775 St. Urbain St	Montreal, Que.
Singer, Frank Lorne	.421 Esplanade Ave., Apt.	5. Montreal, Que.
Taylor, Shirley Todd.		
Tyrrell, K	. 15 Plateau St	Montreal, Que.
Vittie, Keith Cairas	.21 St. Mark St	Montreal, Que.
Weinrauch, Emmanuel I	1199 St. Urbain St	Montreal, Que.

## FACULTY OF DENTISTRY

### FIRST YEAR

NAME	School Last Attended	Home Address
Arsenault, Ludger	.St. Francis Xavier's Col-	Alles Deist, C. P.
Bankoff, Dennis		
		409 Wiley Street, Fort William, Ont.
Bernstein, Saul Harold	!Montreal High School	. 1659 Jeanne Mance St., Montreal, Que.
Brisebois, J. Amelard	. University of Ottawa	
Burnet, Agenot	Pointe-aux-Trembles	Valleyfield, Que. 768 McMillan Ave.
		Winnipeg, Man.
Buchanan, James Le Baron	Acadia Collegiate	.340 St. James St., St. John, N.B.
Bushell, Winston	.Westmount High School.	
Cassidy, Creighton Richard E	Struckarn Landaux	Que.
		Montreal, Que.
Challenger, Cecil Avelyn	Hoscote Coaching Estab.	Basseterre, St. Kitts, B.W.I.
Charland, Walter Edgar	Catholic High School	.1137 Wellington St.,
Cross, Arthur Alexander Davidson, William David		.5 Geneva St.,
Dinsmore, John Wilfred Druckman, Isidore		. 190 Pine Ave. E.,
Dugan, James Lennox	Montreal High School	Montreal, Que. 2459 Park Ave. Montreal, Que.
Floyd, Thomas H	.Soldiers' Matriculation Class, McGill	73 Millbrook Crescent,
Fortier, Jules Armand	Ottawa University	Toronto, Ont. .4031 Berri Street, Montreal, Que.
Gatenby, Ellis	-Private Tuition	
Goldman, Louis Harry	. Montreal High School	

Name	School Last Attended	Home Address
Greaves, Farold I ayland. $\chi$	. Catholic High School	508 Victoria Ave., Westmount, Que.
Herst on, Samuel	Montreal High School	.1402 Clarke Street, Montreal, Que.
Higgins, John Kerr	Provincial Normal School N.B.	
Hough, Henry William (Withdrew Oct., 1920)		St. John N B
Jeffery, Joseph R Jekill, Victor Henry T	St. Francis Xavier College Montreal High School	Arnprior, Ont. 79 Stadacona Ave.,
Kaplansky, David		
Kee, Ralph H	.Mt. Allison Academy	Montreal, Que. 208 Pitt Street,
Kindestine, William		Mamara Oue
Lafleche, Edward Legge, O'Driscoll Longley, Joseph E	St. Michael's College	Montieal, Que. Sturgeon Falls, Ont. Pembroke, Ont.
Doughty, voseph 11	Institute	.167 Church St., St. Catharines, Ont.
McGibbon, James Wright MacLeod, John Chisholm Martin, Russell Edwin	Lachute Academy Vankleek Hill High Sch. St. Francis College High	Lachute Mills, Que.
Mitchell, Arnold W	Sahool	Melbourne, Que. 368 Victoria Avenue,
Moore, Melville Johnson	Commercial and Technica	St. Lambert, Que.
	High School	40 Marsolars Ave.,
Morris, Campbell Price, Lawrence Harvey	Macdonald College McMaster University	Ste. Therese, Que. 349, 31d St., Brandon, Man.
Pritchard, Arthur	.St. Catharines Collegiate.	179 Lake Street, St. Catharines, Ont.
Purcell, Harold Elston Richardson, A. Douglas	Huntingdon Academy Brockville Collegiate	Huntingdon, Que. 653 Durocher Ave.,
Richstone, Samuel	Montreal High School	Outremont, Que. 2266 St. Urbain St., Outremont, Que.
Rosen, Isidore	Montreal High School	810 Cote St. Antoine Road, Montreal, Que.
Rowland, Cecil L	Duke of Connaught High School	
Schwartz, Hyman	Commercial and Technica High School	l 624 Notre Dame St.W
Solomon, Isidore		Montreal Que
Stilwell, Luther H	. Montreal High School	Montreal, Que. 48 St. Matthew St.,
(Withdrew Dec., 1920) Swetnam, William S	Aberdeen High School, Moncton, N.B.	Montreal, Que. 49 Weldon Street,
Toker, Maxwell Harris	Montreal High School	
Toplitsky, Jacob	Commercial and Technica High School	.66a Laurier Ave.,
Vallee, Arthur	.Winooski High School	Montreal, Que. 9 Main St., Winooski, Vt.
Villeneuve, H. René	. University of Ottawa	97 Bolton Street, Ottawa, Ont.

### SECOND YEAR

Name	STREET ADDRESS ;	CITY OR TOWN
Abraham, Johnston William Benjamin, Abraham. Blackburn, Melvin Roy. Bourke, Edward Tennant. *Bourke, William Manly. Brown, Henry T.	.371 Sangainet St	. Montreal, Que. .St. Thomas, Ont. . Montreal, Que. . Montreal, Que. . Westmount, Que.
Carter, John Wilbert. Carver, John Kenneth. Clarke, Perey Maxwell. Cleveland, Edward Thorburn. Dongan, Maurice Lee. Fels, Gerald B.	60a Roberval Ave	Maisonneuve, Que. Neweastle, N.B. Montreal, Que. Magog, Que. Westmount, Que.
Flanagan, James Cyril	731 Clarke St	. Montreal, Que. . Woodstock, Ont. . Brownsburg, Ont. . Sherbrooke, Que. . Ste. Anne de Bellevue,
Laishley, James Harry Lane, Verne Lealy, Michael Lawrence Levy, Albert McCarthy, Gerald James McClenaghan, George Herbert	2127 Retallack St. 129 Mansfield St. .57 Sherbrooke St. E. .807 Cote St. Antoine Rd .604, 12th Street S.	. Regina, Sask. Montreal, Que. . Montreal, Que. . Westmount, Que. . Lethbridge, Alta.
McDonagh, William Anthony. Macmillan, Allan John. McNally, W. J. Simon. MacRae, Donald. Mills, James William. Murray, Powrin Langur	.100 Stratheona Ave	. Ottawa, Ont. Barachois, Gaspe, Que. Maxville, Ont.
Mills, James William. Murray, Parvin Lamont Phelps, Walter Scaling. Pickel, Martin Reid. Radnay, Frank S. (Withdrew, Oct., 1920) Robidoux, Peter Emery. Robinson, Leslie Gilbert. Simon, Morey Leonard. Singer, Jack.	1675 St. Urbain St.	. Shediac, N.B. . Altario, Alta. . Montreal, Que.
Strean, Lyon Peter	740 Notre Dame St. W 1917 Angus St	Montreal, Que. Regina, Sask.

### THIRD YEAR

		***
Blacklock, Joseph Neilson		Elora, Ont.
Broderick, J. Vincent	Box 341	Cornwall, Ont.
Burton Thomas Edwin		Cookshire, Que.
Crowe, Albert Douglas	95 McCulioch Ave	Montreal, Que
Dworkin, Simon	2226 St. Urbain St	Montreal, Que.
Franklin, Gerald	1539 Esplanade Ave	Montreal, Que.
Gross, Munsey Edward	1658 Mance St	Montreal, Que.
Grossman, Albert	214 Cherrier St	Montreal, Que. 🖰 🗀
Harris, Saul	25 Craig St. W	Montreal, Que.
Kelly, Gordon Percy		Huntingdon, Que.
Lank, Harold Henry	1591 Cadieux St	Montreal, Que.
Rosen, Louis Julius	1620 Jeanne Mance St	Montreal, Que.
Swancesky, Alphonse Augustin	ne.219, 5th Avenue	New Westminster,
	,	B.C.

<sup>\*</sup>Partial. †Double Course.

### NAME

\*Partial.

### STREET ADDRESS CITY OR TOWN

#### FOURTH YEAR

Bernfeld, Benjamin. 218 St. Joseph Blvd. Montreal, Que.
Docks, R. G Montreal, Que.
Goldwater, Ephraim (B.A.)53, 17th Avenue Lachine, Que.
Hale, George M
Hyams, Bernard Lawrence66 St. Famille St Montreal, Que.
Kutzman, Ernest Abraham1557 St. Lawrence BlydMontreal, Que.
Laurin, Earl
Ratner, Michael
Rosenbaum, Frank Leon 36 Sherbrooke Street W.,
Apartment 2Montreal, Que.
Russell, Samuel
Salomon, Nathan
Shklar, Louis
Veith, G. Selwyn80 Duluth Ave. WMontreal, Que.
Weiner, Judah

## FACULTY OF LAW.

### FIRST YEAR

NAME	SCHOOL LAST ATTENDED HOME ADDRESS
Baker, Hyman	Montreal High School741 St.Lawrence Blvd, Montreal, Que.
Barré, Stanislas Charles V	St. Mary's College,
	Montreal, Que1161 St. Hubert St., Montreal, Que.
Boright, William Nelson	Mass. Institute of Tech-
	nology, Boston Mansonville, Que Montreal High School 1179 St. Dominique St.,
Bubroff, Isadore	Montreal High School 1179 St. Dominique St., Montreal, Oue.
Cahana, David	. Montreal High School 1265 Cadieux St.,
	Montreal, Que.
Caldwell, William S	. Montreal High School 737 Shuter Street,
*C-11L P1-	Montreal, Que.
"Callagnan, Frank	Prince of Wales College 10 Grafton St.,
	Charlottetown, P.E.I.
Carberry John Edward D	Oneen's University
carserry, bonn Lanara D	Queen's University, KingstonSt. Georges, Grenada,
	B.W.L.
Carroll, Austin Joseph	University of Toronto 202 Glasgow Street,
	Guelph, Ont.
Crestohl, Leo David	. High School, Quebec 1600 Esplanade Ave.,
Douglas, Frances I	Montreal, Que.
Douglas, Frances 1	School
	Toronto, Ont.
Du Plessis, Edgar L	.St. Mary's College.
	Montreal, QueApt. 5, Floor C.,
	17 Latour, Montreal,
77' 1 TO 1	Que.
Figler, Bernard	Montreal High School1138 St. Dominique St.,
Freedman Louis W	Montreal, Que Montreal High School86 Park Ave.,
Treedman, Louis IX	Montreal, Que.
Goubjila, Theodore V	Bucharest University.
, , = , = , = ,	RoumaniaBulevardul Glesabeta
	122, Bucharest,
*D	Roumania.

Name	SCHOOL LAST ATTENDED	Home Address
Greaves, Edwin Mortimer	.Catholic High School	508 Victoria Ave.,
Halperin, Ely M	. University of Montreal	Westmount, Que. 616 Drolet St., Montreal, Que.
Hameroff, Myer	.Lachine High School	83a, 7th Avenue, Lachine, Que.
Johnston, Charles F	.Private Tuition	258 Old Orchard Ave., Montreal, Que.
Lajoie, Jean PaulLaliberté, Jules	.St. Michael College .Nicolet College, Que	Dorval, Que.
Lattoni, Mario Emile Lidstone, Victor John	Montreal High School Montreal High School	Florence, Italy.
MscDonald, George Whitfield Macklaier, William F	Campbellton High School .Montreal High School	.Campbellton, N.B.
Martin, Erle C	.College of L'Assomption .Montreal High School	Dewittville, Que. St. Johns, Que. 1050 Tupper Street, Montreal, Que.
O'Brien, John Lewis (B.A.)		Montreal time
Potter, Alexander O (Withdrew Oct. 8th, 1920) Robinson, Jonathan		
Schaefer, Sydney Louis	. Montreal High School	Montreal Oue.
Senccal, Jacques	. , Loyola College	277 Letourneux Ave., Montreal, Que.
Signer, Morris Bernard	Ecole Technique de Montreal	
Sim, Margaret M	Private Tuition	403 Aqueduct St., Montreal, Que.
Smith, Edgar Donald	. Ridley College	42 Roseberry Place, St. Thomas, Ont.
Storper, Abraham	Vienna Gymnasium	229 Laval Avenue, Montreal, Que.
Taylor, Robert D	Westmount High School.	107 Cote St. Antoine Road, Westmount, Ouc.
Usher, Peter Joseph		1509 Jeanne Mance St. Montreal, Que.
Way, Joseph H. G	Colleges	Bonavista, Nfld.
†Weibel, Louise E	. Montreal High School	.35 Souvenir Avenue, Westmount, Que.
Whitall, Frank Albert	Westmount High School.	544 Roslyn Avenue, Westmount, Que.
	SECOND YEAR	
Name	STREET ADDRESS	CITY OR TOWN
Caron, George (B.A.) Cohen, Harry Cohen, Lawrence Z de Lisle, Gaston. (Withdrew Oct. 12th, 1920)	19 Gillespie Street 25 Rosemount Ave 786 Dorchester Street W	Hull, Que. Sherbrooke, Que. Westmount, Que. Montreal, Que.
On the Control of the	301 Metcalfe St St, Løuis Road 117 St, Joseph Blvd	Ottawa, Ont. Quebec, Que. Montreal, Que. Port-of-Spain, Trinidad.

	REGISTER OF STUDENTS	42
Name	STREET ADDRESS	CITY OR TOWN
Holtham, Bartley Nelson Honey, Howard Percy Hurtubise, Louis Vincent.		Waterville, Que. Abbotsford, Que.
Marion, Camille Wilfrid A Marler, George Carlyle. Mergler, Joseph Konrad. Murphy, John Austin. Neumann, Harold.	276 Pine Avenue W 3.A  85 Mount Royal Ave. W. Apartment 1  175 Villeneuve Street  17 Alexander St.  288 Peel St. 198 Ontario St. E. 819 University St. 4927 Sherbrooke St. W 72 Albert Hall Mansions, Hyde Park	Three Rivers, Que. Rockland, Ont. Montreal, Que. Montreal, Que. Montreal, Que. Westmount, Ove
Savage, Joseph Clifford		Aylmer, Que. St. Lambert, Que.
Abbott Douglas Charl	THIRD YEAR	
Crowell, Kenneth Lee. Duckett, Edward Hogan. Gallery, John O'Neill. Genest, Frank D. Hague, Harry McLeod. Hankin, Francis. Harold, Joseph James. Hayes, Murray William. Henry, Wallace Ross. Hutchison, Paul Phelps. Lafleur, Maurice Theodore. LeBeau, Joseph Armand. Lighthall, William Schuyler McCaffrey, Clarence Franci McCloskey, Francis L. MacKenzie, Colin Campbell MacLean, Herbert Bayne	THIRD YEAR  160 St. Joseph Blvd. W. 297 Prince Arthur St. W. 2731 Pine Avenue W. Apt. 67, 58 Metcalfe St. 35 Aberdeen Ave. St. Andrew's Manse. 4167 Dorchester St. W. 357 Prince Albert Ave. 526 Clarke Ave.  496 St. Denis St. 237 Mountain St. 4286 Sherbrooke St. W. 772 Dorchester St. W. 648 Belgium Ave. 344 Mountain St. 16 Windsor Ave.  698 Mountain St. 314 Peel St. 314 Peel St. 314 Peel St. 44 Murray Ave. 554 Rockland Ave. 698 Mockland Ave.	Westmount, Que. Sandy Cove, N.S. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Westmount, Que. Westmount, Que. Strathcona, Alta. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Montreal, Que. Outremount, Que. Outremount, Que.
Barclay	49 Somerset St	Ottawa, Ont.
Nantel, Eugene Joseph	93 Villeneuve St	Dutremont, Que.

Partial. .

# REGISTER OF STUDENTS

Name	Street Address	CITY OR TOWN
Nicholson, James Gordon	.364 Metcalfe Ave	Westmount, Que.
O'Halloran Melbourne	Aot. 2. 43 St. Mark St	. Montreal, Que.
Parsons, Richard A		.Bay Roberts, Niid.
Detriel Volen Cyril		London England.
Perron, James B	296 Pine Ave. W	. Montreal, Que.
Phelan, Charles Chappelle	. 338 Kensington Ave	Westmount, Que.
Phillimore, Gerald Hawkeswood	d20 Lincoln Ave	. Montreal, Que.
Popliger, Israel Alexander	734 Shuter St	. Montreal, Que.
(LL.B. Course)	F0 C1 C4	Mantreal One
Presner, Phillip	Snearer St.\	Huntinglen Oue
Purcell, John Merritt Renaud, Paul Emile		St Rami Nanierville
Renaud, Paul Emile		Co., Que.
Rabenstein, Mortimer Ross	4998 Sherbrooke St.	
Ryan, Donald Devlin	2519 Park Ave	Montreal, Que.
Sabourin, A. O. Ivan		.St. Johns, Que.
Sauvage, George'Albert	<i></i>	. Adamsville, Que.
Simond Joseph Ernost		Baie St. Paul. One.
Shaniro Joseph J	127 Mount Royal Ave	. Montreal, Que.
Shulman, Samuel Alex	1632 St. Urbain St	. Montreal, Que.
Smith. Arthur I	242 Clifton Ave	. Montreat, Que.
Stuart, Albert William		. Napierville, Que.
Terroux, Arthur Maguire	129 Crescent St	. Montreal, Que.
Travers, Tedcastle Clarke	Bishop's College, Lennox	Ct. Caltusi One
77''' 78' .1 .111 .	ville	Sharbrooks One
Wilson, Kenneth Albert	Ol Court St	Shorbrooke, Que.
Wolfe, John Patrick Younger, George Robert	195 Clandobovo Avo	Westmount Oue
1 ounger, George Robert	100 Clandenoye Ave	ireacinount, que.

# FACULTY OF AGRICULTURE

### FIRST YEAR

Name	SCHOOL LAST ATTENDED	Home Address
Bradford, Douglas Redvers	Lachute Academy	.R.R. No. 5, Lachute, Que.
Hay, Kenneth Archibald Hobart, Alfred Walters		Lachute, Que.
Honart, Amed waiters	Class, McGill	. Apt. 2, 100 Fort St., Montreal, Que.
Mitchell, Claude Ritson	Queen's College, Georgetown, British Guiana	.75 Robb St., George- town, British Guiana
Smith, Robert Henry	,Lodge School, Barbados, B.W.I	Fountain Estate, St. Kitts, B.W.I.
Stewart, Kenneth Edward.	Ewing's Matriculation Class, Ottawa, Ont	.148 Brighton Ave., Ottawa, Ont.
Walsh, George Stanley	Stratheona Academy, Outremont, Que	.280 Clifton Ave., Montreal, Que.

### SECOND YEAR

Name	STREET ADDRESS	CITY OR TOWN
	26 St. Anne Road	
Atwell, Ernest Alleyne.	Hampton Plantation	Que. St. Philip, Barbados,
Hunt, George Edward Kirby, Thomas Howard McKibbin, Reginald Ro MacLennan, Malcolm McOuat, Thomas Edwa: Matthews, Gordon Stua. Perron, Wilfrid Henri	and. 25 Quina Ave. 67 Rushbrooke St. bert rd. Box 27. rt. R.R. No. 2	Longucuil, Que. Montreal, Que. Cookshire, Que. Chelsea, Que. Scotstown, Que. Lachute, Que. Lachute, Que. Lachute, Que.
Rolleston, Lancelot Ome	ond32 Main St	Georgetown, Demerara, British
	242 Sherbrooke St. W ffordWalmer Lodge	Guiana, South America. Russellville, N.B. Montreal, Que. Baie St. Paul, Que. St. Michael, Barbados, B. W. T.
Williams, Edward Kimp Wurzburger, Ralph Laur	oton73a St. Famille St enceR.R. 4	Montreal One
	THIRD YEAR	
Beaudin, Leon Joseph Ar Boily, Francois Leon Ste Clay, Harold Waldorfe Collins, Charles McKitt: Gordon, William Lauren Graham, James Wesley. Hammond, George Hen Lachaine, Osias Wencesli McGreer, Eric Daniel Ness, Robert Bruce Shepherd, Edward Fred	readius	Ormstown, Que. I, Lac St. Jean, Que Bridgetown, P.E.1. Port William, N.S. Lachute, Que. Brysonville, Que. Aylmcr, Que. Orleans, Ont. Montreal, Que. Howick, Que.
Sutherland, John Dougla	asco Mrs. A. F. Winn, 32	Que.
Templeton, Robert Willi Winter, James McGill	Springfield Aveam.	westmount, Que. Riverfield, Que. Ormstown, Que.
	FOURTH YEAR	
Bragg, Paul Douglas	Rogers.R.R. No. 5. 54 Harris Ave. Apt. 3, 670 Sherbrooke S' W	Moneton N B

Name	Street Address	CITY OR TOWN
Chauvin, Frank Bernard. Daly, Paul Macintyre. Denison, Simeon Minor. Hetherington, Samuel Judse Hockey, John Frederick. Jones, Arthur Reginald. Laurie, Douglas Melrose. MacAloney, Mary Lee. MacKenzie, John Murdoch Fraser Major, Thomas Grant. Matthews, George Douglas Milne Arthur Robb	Kelligrew 720 Maplewood Ave 263 Charlotte St Denison's Mills on	. Montreal, Que St. John, N.B Richmond, Que. y, Queen's Co., N.B Baie d'Urfe, Que Montreal, Que Montreal, Que Fairview, N.S Coxhcatn, N.S Montreal, Que Beebe, Que Pointe Claire, Que Ste. Anne de Bellevue,
Norcross, Ashley Christopl	her	Que. Lennoxville, Que.
Perry, William Thomas Peterson, Archibald Willian Richardson, James Keith. Scannell, James Wesley Summonds, Pyre Morton	Butternut Ridge	King's Co., N.B. Montreal, Que. Montreal, Que. Chelsea, Que. Amherst, N.S.
	SPMCIAL STUDENT	
Maw, Arthur John Goodall		Ormstown, Que.

### FACULTY OF MUSIC

PROCEEDING TO THE DEGREE OF MUS. BAC.

FIRST YEAR

Cameron, Elizabeth W.

Aylen, Lois

Frey, Beatrice

SECOND YEAR

Shearwood, Grace

THIRD YEAR

Lord, Dorothy

MacKenzie, Lillian

PROCEEDING TO THE DIPLOMA OF LICENTIATE

FIRST YEAR

Boyd, Veda

Jaillet, Mary

SECOND YEAR

Asner, Esther Graydon, Lillian Huff, Marion Latter, Edith

Norris, G. Pitman, Mabel Quint, Deborah

THIRD YEAR

Aylen, Dorothea Burrell, Irene Cox, Eleanor Nichols, Irene Shapiro, Evelyn

### SENIOR PARTIAL STUDENTS

Anderson, Muriel Anthes, Olive Barwick, Ruth Beale, Winifred Bernard, Marguerite Black, Dora Birkett, W. Bolger, U. Boyd, Veda Bramson, Sylvia Brown, Dorice Cassils, J. Clarke, H. Cliffe, Constance Connolly, M. Cunningham, E. D'Amour, F. D'Amour, R. Davies, G. Dunean, R. M. Dwyer, Madge Feigenbaum, Etta Fletcher, M. Friedman, R. Frosst, R. Gillham, D. Gittleson, G. Goldsworth, D. Gordon, Helen G. Gordon, M. Grigg, Mildred Harris, A. Hayden, S. Heffer, L. Hershorn, Bessie Hibbard, O. Hogg, Helen Jameson, N. Joseph, T.

Keegan, E. Kingman, I. Lamplough, E. Lane, M. Lee, Constance Lighthound, L. Lutton, D. Macdonald, R. McMartin, E. Mallison, E. Mann, Audrey Marks, Annie Marks, Mary Mills, Evelyn Mason, M. Milston, Sophie Monaker, P. Moscovitch, E. Nelligan, E. Percival, L. Perry, Evelyn Pinsler, Etta Raymond, Agnes Read, Audrey Reid, Vera Rothschild, D. Rudner, F. Sammett, J. Seane, M. Silcock, M. Slack, Z. Slovan, M. Spiback, S. Stott, D. Stuart, E. Swift, D. Thacker, G. Watson, N.

# DEPARTMENT OF SOCIAL SERVICE

### CERTIFICATE COURSE

Name	Street	Address	CITY OR TOWN	
Abinovitch, Emma. Campbell, Norma. Gradinger, Dora. (Withdrew Oct. 25th, 1920) Hyde (Mrs.), Dorothy Locke Jamieson, Margaret Carlyle. McArran, Helen. Mae Dermot, Mary Langdon. McEntyre, Claire. Matts, Florence Violet Notkin, Elizabeth Quinlan, Madeline Grace. Williams-Moore, Eleanor Add Young, Ina.	433 Metea 613 Notre e520 Grosv 219 Peel S 865 Dorch 90 St. Mar 29 Cote de 351 Olivie 940 Cherr 323 Redfe a671 Union	Ife Ave. Dame St. W enor Ave. Stester St. W tthew St. es Neiges Roader Ave. ier St. rn Ave. Ave.		
	PARTIAL	COURSE		
Allison, Mary Laura Balfour, Barbara Hewison Baker, Edythe Baker, Ethel Mary	132 Cresee 46 Lorne 2	ent St Ave	Montreal, Que. Montreal, Que.	

Allison, Mary Laura	. Apt. 44, 58 Metcalfe St	. Montreal, Que.
Balfour, Barbara Hewison	132 Crescent St	. Montreal, Oue.
Baker, Edythe	.46 Lorne Ave	. Montreal, Que.
Baker, Ethel Mary	.46 Lorne Ave	Montreal, Oue.
Barrington-Ham, Edith		The state of the s
Alexandra	.18 Rue Ste-Anne	Ouebec One
Beers, Viola Gertrude	106 Fitzrov St.	Charlottetown P.F.I.
Best, Ruby M	712 Durocher St	Outremont One de la
Birkenthal, Helen	.534 Dorehester St. W.	. Montreal, Que.
Boldue, Evelyn	.275 McLaren St.	Ottawa Ont
Bowden, Elsie	145 Grev Ave	Montreal One. Gast
Bradford, J. W	.99 Durocher St.	Montreal One
Bradford, Annie (Mrs.)	99 Durocher St	Montreal Que
Bradley, Grace W	765 Wellington St	Montreal: One
Bridge, Lillian	. roo richington bu	Relfast Maine: U.S.A.
Bury, Augusta	130 Vendome Ave	Montreal One.
Campbell, Mary F	46 Bishon St	Montreal One.
Carsley, Ethel F. M	31 Macgregor St	Montreal Que
Carsley, Mrs. W. F	31 Macgregor St	Montreal One
Carson, J. Morley	39 Staynor Ave	Westmount Oue
Carson, Kathrine J. M	39 Staynor Ave	Westmount Oue
Coghlin, Graham	15 Hope Ave	Montreal One
Dawson, John B.	70 Mance St	Montreal Que
DeLany, Olive Z	46 Bishon St	Montreal Que
Dionne, Marguerite	2658 Park Ave	Montreal One
(Withdrew Oct. 25)	12000 1 414 114 011111111111111111111111	
(Withdrew Oct. 25) Drew, L. N	203 Milton St.	Montreel Oue
Dumaresq, Edna J	.67 Columbia Ave	Westmount Oue
Fraser, Sara		Montreal One
Friedman, Malca	.128 Prince: Arthur St	Montreal: One
Gass, Clare	7 10 Pt	Shubenatadie N.S.
Gass, Daisy Lillian		Shuberneadie N.S.
Going, Ellen Maud	.130 McTavish St.	Montreal; Que.
Goldenburg, Dorothy	325 Grosvenor Ave	Westmount Que
Hay, Kathleen	.56 Concord St	Nashua N.H.
Hellyer, Mrs. J. F	.1500 Cadienx St. E.	Montreal, Que.
Hemming, Winifred	.709 St. Urbain St	Montreal One
Lantz, Gwendolen Jean		Halifax N.S.
Lantz, Gwendolen Jean Learmonth, Francis Winifred.	.236 Wood Ave	Westmount, Que.
Letourneau, Alma	Western Hospital	Montreal One.
Lutwick, Marie	Elmsvale, Musquodoboit	Halifay Co., N.S.
McCrudden, Reta Mary	484 Elm Ave	Westmount Oue
,u mang		. Tresemount, Que.

Name	Street Address	CITY OR TOWN
McIntosh, Jessie Elizabeth.	39 Ballantyne Ave	Montreal West, Que.
McKay, A. R.	. 369 Northeliffe Ave	Montreal, Que.
Mackenzie, Marguerite Franc	es.210 Milton St	Montreal, Que.
MacTaggart, Mabel.		Sonya, Ont.
Moore, Matilda Kathleen S.	R.4318 Montrose Ave	Westmount, Que.
O'Callaghan, Theresa Ogden, Beatrice Ethel	299 Prince Arthur St. W	Montreal, Que.
Parkins, Jessie	828 University St	Montreal, Que.
Porter, Mary Lockhart		
Ratner, Annie Ethel		
Renshaw, Mary		
Shane, Samuel J	1744 Mance St	Montreal, Que.
Smith, Dorothy Elizabeth	200 Rideau St	. Ottawa, Ont.
Stackhouse, Janet C		
Vyse, Constance Elaine	1577 Mance St	Montreal, Que.
Walsh, Mary Stewart	47 Fleet St	Moneton, N.B.
Webster, Jean Lloyd	P.O. Box 593	Yarmouth, N.S.
Williams, Thelma		
Young, Eileen	. 219 Warren St	Roxbury, Mass.

## DEPARTMENT OF PHYSICAL EDUCATION

### FIRST YEAR

Collins, Jean 446 Lansdowne Ave	Westmount, Que.
Currie, Jean	Campbellton, N.B.
Davis, Catherine	Montreal, Que.
Gilmour, Jessie K386 Sherbrooke St	Montreal, Que.
Heathcote, Elsie May 11024, 123rd St	Edmonton, Alta.
Hollies, Fanny A. (Mrs)318 Sherbrooke St. W	Montreal, Que.
Little, Estelle 4061 Tupper St	Montreal, Que.
MacDermot, Sara 90 St. Matthew St	Montreal, Que.
Munro, Iveagh. 318 Sherbrooke St	Montreal, Que.
Reynolds, Margaret Hazel 641 Grosvenor Ave	
Somerset, Tannis Elizabeth 610 Clurke Ave.	

# SECOND YEAR

Black, Laura Margaret		Sackville, N.B.
Brown, Christine		
Dyke, Olive	369 Lansdowne Ave	Westmount, Que.
Gallery, Gertrude	221 McDougall Ave	Outremont, Que.
Horobin, Aliee Rebekah		
Jenckes, Eleanor Brooks	318 Sherbrooke St. W	. Montreal, Que.
Maclaren, Florence Reid		Buckingham, Que.
Porritt, Dorothy I	707 Grosvenor Ave	Westmount, Que.
Savage, Queenie L. E	.20 Highland Ave	Montreal, Que.
Silvester, Edythe R	318 Sherbrooke St. W	Montreal, Que.
Taylor, Elizabeth A		
Whillans, Jean B	.35 Chomedy St	Montreal, Que.

Partials

Alexander, M. Bell, H. Black, Miss Cauldwell, D. Craven, M. Dawson, Miss Dedine, Miss Engelke, Miss Goodhuc, Miss Nellie Hall, Mrs. H. F. Holmes, V. Kingston, Miss Lefebvre, L. Lemasnie, Mrs. Lewis, N. M. Liggett, Miss MacCammon, Miss McCombe, Miss MacDermott, Miss Macfarlane, A. McLean, Mrs. A. H. MacPherson, Miss Matthews, D.

Matts, Miss Florence
Niblo, J.
Panton, Miss
Parkes, Mrs. R. H.
Phelen, E.
Quinlan, Miss Madeline
Rayside, Miss Edith C.
Reynolds, B.
Reynolds, B.
Ritchie, G.
Sharpe, Miss
Slattery, Miss
Smith, D.
Sproule, P.
Tilden, M.
Wain, E.
Warner, L.
Watson, Miss
Watt, F.
Whitall, E.
Wilder, L.
Williamson, G.
Young, Ina
Young, Mrs.

#### SCHOOL FOR GRADUATE NURSES

Name	Street Address	
Bertrand, Theodria		. Hawkesbury, Ont.
(Withdrew Nov. 3rd, 1920)		
Black, Charlotte	Peaehland	Okanagan Lake, B.C.
Chaynon, Hubertha	2547 Park Ave	. Montreal, Que.
(Withdrew Nov. 3rd, 1920)		W. 1 O
Dawson, Hilda	.4217 Western Ave	westmount, Que.
(Withdrew Nov., 1920)	100 Chairtanhan Columbus	
Dedine, Laura A	180 Christopher Columbus	Montreel Oue
(Withdrew Feb. 1st, 1921) *Denovan, Christina	262 Drings Arthur St	Montreal Oue
Finigan, Mary Margaret M.	264 Wood Ave	Westmount One.
(Withdrew Oct. 30th, 1920)	nood Ave	westmount, wae.
*Fraser, Sara	110 Crescent St. Ant. 4	Montreal, Oue.
*Frost, Emilie M	Alexandra Hospital	Montreal, Que.
*Gass, Clare	101 Luke St	Montreal, Que.
*Holt. Mabel K		. Sussex, England.
James, Janet J	46 Bishop St	. Montreal, Que.
Kingston Sarah I		Buffalo, N.Y.
Lemasnie, Eleanor F. H. (Mrs	.)941 Dorchester St. W	Montreal, Que.
Liggett, Flora C	656 Lansdowne Ave	. Westmount, Que.
McCammon, Margaret A	erren iller eine En den gestern	Inverness, Que.
McComb, Mildred A	5614 Sherbrooke St. W	Montreal, Que.
MacDermott, Mary L	90 St. Matthew St	Montreal, Que.
(Withdrew)	C1 11	Hamilton Out
Macpherson, Nora E	General Hospital	. Hamilton, Ont.
Panton, Kathleen*Reed, Frances L	Conoral Hamital	Montreel One
*Robertson, Catherine	Alexandra Hespital	Montreal One
Sharpe, Ethel M	43 Windsor Ave	Westmount, Que.
Slattery, Anne	windsor rec	Port Morien.
		Cape Breton, N.S.
*Strumm, Flora E		. Mahone Bay, N.S.
Watson, Beatrice Olney		. Kingston, Jamaica,
*Webster, Jennie		Cobourg, Ont.
Young, Mary A		. Lloyuminster, bask.
And, in addition, 9 nurses of	f the Victorian Order of Nu	rses as Partial Students.
,		

# THE GRADUATE SCHOOL

## PROCEEDING TO THE DEGREE OF MASTER OF ARTS

Name	Street Address	CITY OR TOWN
Clark, Peter Archibald	, B.A36 Longueuil St	
Jones, Thomas William MacBain, Mary Normile (Cornell)		Montreal, Que.
Meyer, Bertha, B.A Newnham, May Louise Nichol, Helen R. H., B	University of King's Col I, B.A. 198 Ontario St. E	Westmount, Que. Prince Albert, Sask. Westmount, Que.
Novick, Fannie, B.A Wiseman, Solomon, B.A	Street W	Montreal, Que. Montreal, Que.
Proce	EDING TO THE DEGREE OF MAS	TER OF SCIENCE
Alberga, George Freder B.Sc		Montego Bay, Jamaica, B.W.I.
Auchinleck, Gilbert Gr. B.Sc	aham,	
(Chicago)	Southern Division ert,	Vancouver, B.C. Norfolk, Va.
Douglas, Allie Vibert, I Douglas, George Vibert		Westmount, Que.
Fowler, Grant McAlliste Harding, Ellis George, (South Africa)	well M., 55 McCoy Street. 51 York St. er,B.A. B.Sc. Box 52 (c, B.A.768 St. Catherine Road. g, B.A.280 Main Street.	Dryden, Ont. Bolnsburg, Transvaal, South Africa.
(St. Francis Aavier) Kelsall, Arthur, B.S.A. Kennedy, Margaret Ev	ra, B.A " Dalmogarr	
McFarlane, N.C., B.A.	219 York St	
Millar, Thomas Boyd,	A B.Sc	Ormstown, Que. Portage-la-Prairie, Man.
Morgan, Neil Lyman, I	3.S.A University of British Columbia 3.Sc92 St. Mark St	Vancouver, B.C. Montreal, Que.
B.A Saunders, Leslie Gale,	rard, 17 St. Mark St B.S.A19 Jubilee Road	Montreal, Que. Halifax, N.S.
B.Sc	lstone, 1022 Dorchester St. W	Montreal, Que.

	THE STATE OF STODENIS	43
NAME	Street Address	CITY OR TOWN
Wallace, George Arthu	r, B.Sc.	. Waterloo, Que. . Granby, Que.
2.00	358 St. George St	Moncton, N.B.
PROCEEDIN	G TO THE DEGREE OF DOCTOR OF	PHILOSOPHY
Dickson, Bertram Thor	, M.Sc.32 Brunswick St. W nas,	
DnPorte, E. Melville, E	3.S.A.,	Macdonald College, Que.
	B.S.A., Basseterre Newcastle	St. Kitts, B.W.I. St. John, Barbados, B.W.I.
Hatcher, William Hook B.A., M.Sc	70.0	· · · · · · · · · · · · · · · · · · ·
McKinney James Willer	rd	Amherst, N.S.
Von Abo. Cecil Vivian	\r \\.	Claresholm, Alta.
B.Sc. (Capetown, S.A. Wheeler, Nathaniel Erne	.)tarys	Orange Free State, South Africa.
B.S. (Colby), B Sc (ad	aund)	
Wright, Charles Alfred 1	19a Western Ave	Waterville, Maine.
M.Sc. (Univ. of B.C.).	1091 Broughton St	Vancouver, B.C.

# STUDENTS IN ATTENDANCE

session 1920-1921

Arts.	Under- graduates	Partials.	Total.
First Year—Men. Women. Second Year—Men. Women. Third Year—Men. Women. Fourth Year—Men. Women.	87 71 86 59 45 37 43 36	15 18 13 5 10 10	102 89 99 64 55 47 44 37 —537
School of Commerce. First Year—Men. Second Year—Men. Women. Third Year—Men. Women.	\$4 52 2 9	5 1 0 0	89 53 2 9 1 —154
Applied Science,  First Year Second Year Third Year Fourth Year Fifth Year Architecture).	190 206 158 112 2	4 1 3 0	$\begin{array}{c} 194 \\ 207 \\ 161 \\ 112 \\ \hline -676 \end{array}$
Medicine.  First Year—Men Women Second Year-Men Women Third Year Men Women Fourth Year—Men Women Fifth Year Diploma of Public Health	111 3 233 2 123 3 106 4 104	0 0 0 0 0 0 0 1 0	$ \begin{array}{r} 141 \\ 3 \\ 233 \\ 2 \\ 123 \\ 3 \\ 107 \\ 4 \\ 105 \\ 3 \\ -724 \end{array} $
For the Diploma of Pharmaey—Men	::		35 4 —39
Dentistry. Last Year Second Year—Men . Thard Year Lourth Year	53 59 13 14	0 1 0 0	53 40 13 14 —12)

Law.	Under- graduates.	Partials.	Total.
First Year—Men. Women. Second Year—Men. Women. Third Year—Men.	37 4 31 2 57	1 0 0 0	38 4 31 2 57 —132
AGRICULTURE.			
First Year—Men. Second Year—Men. Women. Third Year—Men. Fourth Year—Men. Women. Special Student.	7 25 1 17 24 2 1	0 0 0 0 0 0 0	7 25 1 17 24 2 1 -77
FACULTY OF MUSIC.			••
Proceeding to the Degree of Mus. Bac.—Wome Proceeding to the Diploma of Licentiate in Mu Partial Students  Department of Social Service.	ısic—Womer	1	6 14 77 —97
Certificate Course			13 59 —72
DEPARTMENT OF PHYSICAL EDUCATION.			
First Year Second Year Partial Students			11 12 47 —70
School for Graduate Nurses.			
Certificate Course			$\frac{19}{18}$
GRADUATE SCHOOL.			
M.A. Course—Men.  Women.  M.Sc. " Men.  Women.  Ph.D. " Men.  Women.			7 5 22 6 9 1 —50
Less number whose names appear in more tha	n one list		2785 29
Total			2756
In addition to the above, 1341 were enro	lled in exten	sion courses	•

## UNDERGRADUATE AND GRADUATE SOCIETIES.

No Club or Society which has not been approved by the Corporation is entitled to use the name of the University, or of the Royal Victoria College. Applications for such approval, accompanied by a copy of the constitution, should be addressed to the Registrar.

## The Students' Council of McGill University.

### Officers 1921-22.

President-J. G. Copeland, B.A. Controller-J. W. Jeakins, B.A. Secretary-James A. Lalanne, B.A.

### Executive Council.

R. S. Hall, Arts '22, Representative from Arts. J. Long, Law '22, Representative from Law.

H. E. Mott, Sci. '22, Representative from Science.
D. Gordon, Med. '22, Representative from Medicine.
S. H. Davis, Sci. '22, President McGill Union.
R. McLagan, Sci. '23, President Rugby Club.
J. C. Flanagan, Dent. '23, President Hockey Club.

D. Foss, Sci. '23, President Track Club. R. L. Hamilton, Med. '23, President Athletic Association. W. F. Maclaier, Arts '22, President "McGill Daily."

#### The McGill Union.

## OFFICERS 1921-22.

President—S. H. Davis, Sci. '22. Vice-President—C. B. Rochester, Sci. '23. Secretary—J. G. Quackenbosh, Med. '24.

## "McGill Daily."

### Officers 1021-22.

President-Wm. F. Maclaier, '22. Editor-in-Chief-J. L. O'Brien, B.A., '24.
Managing Editor-H. O'Hagan, '22.

# Undergraduates' Literary and Debating Society.

Officers 1920-21.

Hon. President—Dean Moyse. Hon. I. U. D. L. Rep.-Dr. Leacock. I. U. D. L. Rep.—J. C. Farthing.
President—D. C. Abbott. 
Vice-President—F. O. Peterson.
Secretary—C. P. Hébert.
Treasurer—W. S. Lighthall.

## Arts' Undergraduates' Society.

OFFICERS 1921-22.

President—Clive Mathewson.
Vice-President—Errol C. Amaron.
Treasurer—W. B. Brewer.
(Other Officers to be elected.)

## R. V. C. Undergraduates' Society.

OFFICERS 1921-22.

President—Winnifred Birkett. Vice-President—Lorna Kerr. Sec.-Treasurer—Phyllis Murray.

## Undergraduates' Society in Applied Science.

OFFICERS 1921-22.

President—Roy H. Foss.
Vice-President—A. W. Carlyle.
Sceretary—S. J. McDonald.
Treasurer—E. Crain.
Asst. Sec.-Treasurer—W. L. Rochester.

## Undergraduates' Society in Law.

OFFICERS 1921-22.

President—John Long.
Vice-President—B. N. Holtham.
Secretary—Miss Douglas.
Treasurer—E. C. Martin.

## Medical Undergraduates' Society.

Officers 1921-22.

Hon. President—Dr. W. W. Chipman.
President—Dr. W. T. Stinson.
Vice-President—K. B. Johnston.
Treasurer—M. H. Dawson.
Secretary—W. F. Emmons.
Asst. Secretary—R. H. Whidden.
Councillors { Dr. W. H. P. Hill.}
Dr. C. A. Peters.
Case Reporter—H. H. Hart.

# Philosophical Society.

Officers 1920-21.

Hon. President—Dr. W. Caldwell.

Hon. Councillors { Dr. J. W. A. Hickson. } Dr. W. Tait.

President—L. A. Sperber, '21.

Vice-President—R. J. Clarke, B.A.

Secretary—M. H. Franklin, '21.

Treasurer—H. Echenberg '21.

## Chemical Society.

OFFICERS 1920-21.

President—Dr. F. M. G. Johnson. Vice-President—Dr. A. S. Eve. Secretary-Treasurer—W. H. Hatcher.

# Mining and Metallurgical Society.

OFFICERS 1921-22.

Honorary Presidents { Dr. J. B. Porter. Dr. A. Stansfield.

President-Mr. A. R. Lawrence.

Vice-Presidents Mr. A. W. Carlyle. Mr. P. D. P. Hamilton.

Sec .- Treasurer-Mr. Gordon.

## Physical Society.

OFFICERS 1921-22.

President—Prof. J. A. Gray, D.Sc. Vice-President—Prof. A. H. S. Gillson. Secretary—Miss L. A. Smith, B.A.

# Commercial Society.

OFFICERS 1921-22.

Hon, President—R. M. Sugars. President—A. H. MacKinnon. Vice-President—A. E. Tremaine. Secretary—E. F. O'Brien. Treasurer—W. B. Brewer. Publicity Manager—G. H. Nichol.

### Historical Club.

OFFICERS 1921-22.

Hon. President—Dr. C. E. Fryer.
President—F. H. Walter.
Vice-President—R. C. Harris.
Treasurer—N. Egerton.
Secretary—A. O. Leslie.
Advisory Committee { G. C. Wadsworth.
H. R. C. Avison.

#### Electrical Club.

Officers 1920-21.

Hon. President—Dr. L. A. Herdt.
Hon. Vice-President—G. A. Wallace, B.Sc.
President—T. A. G. Bishop.
Secretary—A. F. Glen.
Treasurer—R. D. Clerk.
A. G. Anderson.
D. V. Canning.
S. C. Hill.
M. Eaton.
C. L. Kennedy.

### Mechanical Club.

Officers 1921-22.

Hon. President—Prof. A. R. Roberts.

President—J. D. Fry, Sci. '22.

Vice-President—R. H. Foss, Sci. '22.

Sec.-Treasurer—T. L. Bieler, Sci. '23.

2nd Year Representative—A. L. C. Atkinson, Sci. '24.

Ist Year Representative—To be elected.

## Political Economy Club.

Officers 1921-22.

Hon. President—Dr. Stephen Leacock.
Hon. Vice-President—Dr. J. C. Hemmeon.
2nd Hon. Vice-President—Mr. B. K. Sandwell.
President—S. D. Pierce.
Vice-President—P. H. Addy.
Sceretary—G. L. van Vliet.
Treasurer—E. W. Willard.

# Architectural Society.

Officers 1921-22.

President—R. S. Morris. Vice-President—A. L. Perry. Secretary—F. B. van Etten. Treasurer—M. C. Luke. Committee { Prof. R. Traquair. W. Carliss.

## Cercle Français.

Officers 1921-22.

Hon. President—Prof. J. L. Morin, M.A. President—D. Cowan.

Vice-President—C. J. G. Molson.

Secretary—M. Gaboury.

Treasurer—G. M. Webster.

## Société Française.

OFFICERS 1921-22.

Hon. President—Mlle L. Touren.

President—Doris Sharples.

Vice-President—Alice R. Roy.

Secretary-Treusurer—M. Elliot.

Representatives—Fourth Year, E. Banfill; Third Year, S. Dörken;

Second Year, Audrey Lamb.

## Société Littéraire Française.

President-Prof. René Du Roure.

## Delta Sigma Society.

No list of officers received.

## Student Christian Association of McGill University.

The active membership of this Association comprises members of McGill University and affiliated colleges who subscribe to a simple statement of purpose and who approve the objects of the Association.

The home of the Association is Strathcona Hall, which, in addition to affording ample accommodation for the work of the Associa-

tion as a whole, provides residence for sixty-seven men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the General Secretary.

## Officers 1921-22.

Hon. President—Mr. W. M. Birks.
President—E. C. Amaron, Arts '23.

1st Vice-President—J. B. Ross, Med. '24.
2nd Vice-President—H. R. C. Avison, Med. '22.
Rec.-Secretary—R. V. Ward, Med. '24.
Treasurer—T. G. Browne, Med. '22.
Gen.-Secretary—J. G. McKay, B.A., M.C.

# The Student Christian Association of The Royal Victoria College.

Officers 1921-22.

Honorary President—Mrs. F. D. Adams.

President—Lorna Kerr.

Vice-President—Dorothy Teed.

Secretary-Treasurer—M. Holloway.

Bible Study Convener—Dorothy Cross.

Social Service Convener—Nellie Safford.

Missionary Convener—Alice Smith.

Conference Convener—Zerada Slack.

#### Chess Club.

Officers 1921-22.

President—R. Du Berger, '23. Vice-President—H. S. Jordan, '21. Secretary-Treasurer—D. Cowan, '23. Executive (C. Hunten, '23. H. Johnston, '24.

### Cosmopolitan Club.

OFFICERS 1921-22.

President-Amir Amerikhanian.

### Old Scouts' Club.

OFFICERS 1921-22.

Hon. President—Prof. N. N. Evans.

President—E. C. Amaron.

Vice-President—J. L. Bieler.

Secretary—E. T. Harbert.

Treasurer—A. B. Strong.

Executive Members { M. F. Macnaughton. G. B. Binmore. C. R. Whittemore.

#### Social Service Club.

No list of officers received.

# Royal Victoria College Athletic Association.

OFFICERS 1921-22.

Hon. President—Miss Lichtenstein.

Honorary Adviser—Miss E. M. Cartwright.

President—Mary Fry.

Vice-President—Zerada Slack.

Secretary—Carol Robertson.

Treasurer—Dorothy Sangster.

Basket Ball Manager—Thelma Rough.

Tennis Manager—Lois Aylen.

Hockey Manager—Evelyn Snyder.

Fancy Skating Manager—Evelyn Banfill.

Sports Manager—Jean Henderson.

Swimming Manager—Kathlyn Newnham.

### Athletic Association.

OFFICERS 1921-22.

President—R. L. Hamilton, Med. '23. Vice-President—B. C. Rochester, Sci. '23. Secretary—J. G. Quackenbush, Med. '24.

## Rugby Football Club.

Officers 1921-22.

Hon. President—Dr. Turner. President—T. R. McLagan. Vice-President—D. W. Ambridge. Secretary—H. D. Mallison

Secretary—H. D. Mallison.
Faculty Representatives—Medicine, N. Livshin; Arts and Commerce,
N. Wallace; Science, J. C. Russel; Law, A. J. Carrol;
Dentistry, J. Flanagan.

## Swimming Club.

Officers 1921-22.

Hon. President—Dr. Sullivan. President—Roy Foss. Vice-President—F. L. Parsons. Secretary—W. Laidley, Sci. '23. Treasurer—W. D. Munro. Reporter—M. Bruker.

#### Indoor Baseball Club.

Officers 1921-22.

President—R. B. Henry. Vice-President—S. Gamble. Secretary—O. L. McCulloch.

### McGill Snowshoe Club.

Officers 1921-22.

Hon. President—Prof. T. H. Matthews. President—J. C. Simpson, Vice-President—C. Davis. Secretary—M. Egerton, Treasurer—C. E. Creelman,

#### Lawn Tennis Club.

OFFICERS 1921-22.

Honorary President—J. K. Greene,
President—C. N. Ramsay.
Vice-President—A. N. Ramsay.
Secretary-Treasurer—C. A. Parker.
Alumni Representative—E. St. C. Ward.
Arts Representative—R. Howell.
Science Representative—G. D. McTaggart.
Medicine Representative—W. F. Crocker.
Law Representative—R. Dillon.
Outside Representative—Dr. H. R. Cleveland.

#### Harriers' Club.

OFFICERS 1921-22.

Hon. President—Dr. MacMillan.
President—G. Stephen.
Vice-President—J. C. Simpson.
Secretary-Treasurer—N. Egerton.
Captain—R. E. Legg.

#### Ski Club.

OFFICERS 1921-22.

President—O. N. H. Owens, Sci. '23. Vice-President—A. F. Glen, Sci. '22. Secretary—L. G. Reid, Com. '22. Treasurer—E. A. Sherrard, Sci. '23.

### Hockey and Skating Club.

OFFICERS 1921-22.

Hon. President—Dr. V. P. Heney.
President—J. C. Flanagan.
Vice-President—R. B. Anderson.
Secretary and Manager—C. B. Fox.
Medicine:—E. J. Behan.
Science:—M. H. Dineen.
Arts and Law:—W. Lyall.
Dentistry:—L. Kent.

#### Track Club.

OFFICERS 1921-22.

Hon. President—Dr. F. Tees.
President—D. Foss.
Hon. Secretary-Treasurer—Dr. C. T. Sullivan.
Vice-President—D. Johnson.
Secretary and Manager—J. O'Brien.

# Boxing, Fencing and Wrestling Club.

OFFICERS 1921-22.

President—D. W. MacKeen, Sci. '22. Vice-President—W. B. Brewer, Com. '23. Secretary and Manager—G. R. Currie, Com. '23.

## Western Club of McGill University.

The Club has for its objects the furthering of the interests of McGill in the four Western Provinces and the helping of new students to McGill from these Provinces.

Students from Manitoba, Saskatchewan, Alberta, or British Columbia, coming to McGill for the first time, are requested to communicate with the Secretary of the Club, care The Union, McGill University, Montreal.

Officers 1920-21.

Hon. President-Dr. J. L. Todd. President—R. S. O'Meara. Vice-President—A. S. Caldwell. Secretary—E. H. Henderson. Treasurer-J. M. Jones.

British Columbia:-J. S. Helmcken, 915 Moss St., Victoria, B.C. Committee

Alberta:—F. H. Fisk,

3219 Fourth St., Calgary, Alta.

Saskatchewan:—S. K. Clark,

Kamsack, Sask. Manitoba:—K. M. Winslow, 137 Middlegate, Winnipeg, Man.

## Eastern Townships Club.

Officers 1921-22.

Hon. President-Hon. W. G. Mitchell. President—A. S. Johnson, Jr. Vice-President-H. L. Banfill. Secretary—J. B. Woodman. Treasurer—H. F. R. Holtham.

Patrons-Sir Arthur Currie, Hon. Sydney Fisher, Mr. A. R. McMaster, Mr. A. S. Johnson, Mr. John Hackett, Dr. Colby (Stanstead), Mr. A. J. Brown.

# The Maritime Club of McGill University.

The objects of this Club, which was formed nine years ago by the amalgamation of the Nova Scotia and New Brunswick and Prince Edward Island clubs, is to promote, in every way possible, the best interests of students coming to McGill from the Maritime Provinces. Such students are urgently requested to communicate with the Secretary of the Club, who will be glad to render them all assistance in his power.

Officers 1920-21.

Hon. President-Dr. C. A. Peters. President—A. R. Lawrence, Sci. '22. Vice-President—P. MacIntyre, Med. '21, Secretary—H. S. Trefry, Med. '21. Treasurer-A. H. Chisholm, Sci. '21.

#### American Club.

Officers 1920-21.

Hon. President-Dr. J. Bonsall Porter. President—H. V. Karnes, Sci. '20. Vice-President—Henry C. Knowlton, Med. '23. Treasurer-Keith Livingstone, Sci. '21. Secretary-H. C. Waugh, Med. '20. Asst. Secretary-Harold Katzman, Med. '22.

# Newfoundland Club of McGill University.

## Officers 1021-22.

Hon. President-Sir Thomas Roddick, Kt., M.D., LL.D., F.R.C.S. President—C. F. Davis, Arts '22.
Vice-President—L. J. Jackman, Med. '23.
Secretary—G. Bishop, Arts '23.
Treasurer—A. W. Johnson, Com. '21.
Reporter—J. H. G. Way, Law '23. Social Committee { R. H. Le Messurier, Arts '23. M. F. Cashin, Med. '23.

# Graduates' Society of McGill University.

Officers 1920-21.

President-P. F. Sise, B.Sc. Ist Vice-President—J. A. Nicholson, M.A., LL.D. 2nd Vice-President—W. E. Deeks, M.D. Hon. Secretary—Prof. N. N. Evans. Hon. Treasurer-Dougall Cushing. Dr. J. L. Todd. Dr. H. M. Little. Executive Executive Col. G. E. McCuaig.
Major J. C. Kemp.

Executive Secretary—John W. Jeakins, B.A., McGill Univ., Montreal.

# Alumnae Association of McGill University.

Officers 1920-21.

President-Miss L. M. King, M.A. Ist Vice-President-Miss Ada Dickson, B.A. 2nd Vice-President—Miss F. H. Pitcher, B.A. 3rd Vice-President—Miss C. I. Mackenzie, B.A. 4th Vice-President—Miss Margaret F. Hadrill, B.A. Cor. Secretary—Mrs. J. W. McCammon, B.A., 126 Durocher Street. Treasurer-Miss A. Muriel Gillean, B.A.

# District of Bedford McGill Graduates' Society.

OFFICERS 1920-21.

Honorary President-Hon. G. G. Foster, K.C. President—Hon. Mr. Justice Hackett. Vice-President for Missisquoi County-Major R. F. Stockwell. Vice-President for Brome County—Dr. A. C. Paintin. Vice-President for Shefford County—Mr. C. A. Nutting, K.C. Secretary-Treasurer—Rev. Ernest M. Taylor, M.A., Knowlton, P.Q.

## Calgary Graduates' Society.

OFFICERS 1921-22.

President-Col. George McDonald. Secretary-

# McGill Alumni Association of Chicago.

OFFICERS 1921-22.

President—Dr. J. B. Loring. Secretary—Dr. Norman Kerr, 25 East Washington St., Chicago, Ill.

## Halifax Graduates' Society.

OFFICERS 1921-22.

President—Dr. G. E. Nicholls.

Secretary—Miss Jane B. Wisdom, B.A., Halifax Welfare
Bureau, Halifax, N.S.

# Hamilton Graduates' Society.

OFFICERS 1921-22.

President—Ven. Archdeacon Geo. A. Forneret. Secretary—C. F. Whitton, 10 Turner Avenue, Hamilton, Ont.

# Kootenay (B.C.) and Boundary Graduates' Society.

Officers 1921-22.

President—Dr. C. S. Williams. Secretary—C. T. Oughtred, B.A., Trail, B.C.

# Los Angeles Graduates' Society.

OFFICERS 1921-22.

Secretary—J. E. Macdonald, Esq., 446 Pacific Electric Bldg., Los Angeles, California.

# McGill Graduates' Society of Manitoba.

(No list of Officers received.)

# New England Graduates' Society.

OFFICERS 1921-22.

President—Dr. A. R. Sawyer, M.D. Secretary—Rev. J. A. Thompson, B.A., The Rectory, Bridgewater, Mass.

# New York Graduates' Society.

OFFICERS 1921-22.

President—W. W. Colpitts, Sci. '99.

1st Vice-President—F. G. Wickware, Sci. '06.

2nd Vice-President—Robert MacDougall, Arts '90.

Secretary—W. H. Donnelly, Med. '03,

178 Woodruff Ave., Brooklyn, N.Y.

Treasurer—O. S. Hillman, Med. '06.

## GOVERNORS.

1920 Class— { W. E. Deeks, Med. '93. R. A. Weagant, Sci. '05.

1921 CLASS— { Frank Miller. H. George Schwartz, Med. '98.

1922 CLASS- { J. L. Joughin, Med. '06. D. S. Likely, Med. '05.

### Non-Resident Councillors.

Prof. J. C. Bracq, Arts '81, Poughkeepsie, N.Y.; Dr. C. J. Patterson, Med. '86, Troy, N.Y.; Dr. J. B. Harvie, Med. '81, Troy, N.Y.; Mr. R. O. King, Sci. '95, Buffalo, N.Y.; Mr. T. H. Addie, Sci. '02, Wilmington, Del.; Dr. E. W. Smith, Med. '82, Meriden, Conn.

# Northern Alberta Graduates' Society.

OFFICERS 1021-22.

Treasurer-G. H. McDonald, Esq. Secretary-C. Carruthers, B.A., 8319 101st Street, Edmonton, Alta.

# Ottawa Valley Graduates' Society.

Officers 1921-22.

Honorary President—P. D. Ross, B.Sc.

President—Hon. G. V. White.

Vice-Presidents—J. B. McRae, B.Sc.; O. S. Finnie, B.Sc., D.L.S.;

Dr. C. T. Ballantyne.

Secretary-J. H. H. Nichols, 2 Sweetland Ave., Ottawa, Ont. Treasurer-Frederic E. Bronson, B.Sc.

Executive Committee-R. C. Berry; Dr. H. B. Small; Col. L. W. Gill; C. McL. Pitts; Gordon G. Gale, M.Sc.

# Prince Edward Island Graduates' Society.

Officers 1921-22. Treasurer-C. H. B. Longworth, Esq.

# Quebec Graduates' Society.

Officers 1921-22.

President-Brig.-Gen. J. E. Landry, B.C.L. Secretary-O. L. Boulanger, B.C.L., 132 St. Peter St., Quebec, Que.

# St. Maurice Valley Graduates' Society.

Officers 1921-22.

President-Secretary-R. Ross Laing, B.Sc.

# St. John (N.B.) Graduates' Society.

Officers 1921-22.

President-C. C. Hare, B.Sc. Secretary-Dr. Doris Murray, B.A., 254 Douglas Avenue, St. John, N.B.

# McGill Graduates' Society of Vancouver.

OFFICERS 1921-22.

President—Dr. F. P. Patterson. Secretary—G. S. Raphael, B.Sc., 1236 Thirteenth Ave. W., Vancouver, B.C.

## McGill Graduates' Society of Toronto.

Officers 1921-22.

President—Willis Chipman, Esq. 'Secretary—S. G. Crowell, B.A., 25 King Street W., Toronto, Ont.

# McGill Graduates' Society of Victoria.

Officers 1921-22.

President—S. J. Willis, Esq. Secretary—Dr. G. C. Kenning, M.D., 305 Sayward Block, Victoria, B.C.

# McGill University.

SESSIONAL EXAMINATIONS, 1920-21.

# Faculty of Arts.

# FOURTH YEAR (GRADUATING CLASS).

PASSED FOR THE DEGREE OF B.A.

## In Honours.

(Subjects arranged alphabetically.)

# I. In Biology.

Higginson, Helen Magee......First Class Honours.

## 2. In Chemistry.

Barnes, Edith Louise	First Class Honours.
Roston, Lucille	
Larkin, Beatrice Jean	Second Class Honours.
Foran, Herbert Paul	Second Class Honours.
Olding, Maude Emma Mary	Second Class Honours.

# 3. In Chemistry and Biology.

Spier, Ja	ne Dickso	n	. First	Class	Honours.
Godwin,	Kathleen	Francis	. First	Class	Honours.

## 4. In Economics and Political Science.

Fife, Harry MooreFirst Class Honours and Allen
Oliver Medal and Scholarship.
Oliver Medal and Scholarship. Raphael, Max IsaacFirst Class Honours.
Davidson, Winnifred HazelFirst Class Honours.
Borden, Henry Sperber, Lionel Albert  } equalFirst Class Honours.
Sperber, Lionel Albert \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Cameron, Katherine LockeSecond Class Honours.
Ross, Henry Taylor, JrSecond Class Honours.
Kern, Louis Walter } equalSecond Class Honours.
Kern, Marshall James ) equal: Second Class Honours.
Pratt, William FrederickSecond Class Honours.
Common, Ernest CameronSecond Class Honours.
Echenberg, Henry Lehrer 1 and Class Hanney
Echenberg, Henry Lehrer equal Third Class Honours.
Rowat, Harland Cameron (Aegrotat)

## 5. In English and French.

Harvey, Constance Muriel......First Class Honours in English and Second Class Honours in French.

Mathewson, Dorothy Ruth......Second Class Honours in English and Third Class Honours in French.

## 6. In English and History.

Hackett, Aileen Alexandria. First Class Honours.
Cockfield, Helen Reid. First Class Honours.
Bagg, William Herbert. First Class Honours in English
and Second Class Honours in
History.

Husk, Ruth Joy Esther..... Second Class Honours.

## 7. In Geology.

Dart, Jennie Doris........First Class Honours and The
Logan Gold Medal for Geology, Mineralogy and Palæontology.

# 8. In History and Greek.

Holland, Ethelwyn Jamieson......First Class Honours.

# 9. In Mathematics and Physics.

McPherson, Anna Isobel......First Class Honours and Anne Molson Gold Medal.

Thornton, Jessie Muriel....Second Class Honours.

# 10. In Modern Languages.

# First Class General Standing.

PASSED FOR THE DEGREE OF B.SC. (IN ARTS).

### IN HONOURS.

# In Chemistry.

## PASSED FOR THE DEGREE OF B.A.

## IN THE ORDINARY COURSE.

## (In order of merit.)

- Class I.—Farthing, John C.; Moule, Dorothy E. Class II.—Mills, Gladys A.; Cameron, George M.; Barnes, Doris S.; Contant, Rebecca A.; Campbell, S. Doris; Ford, Constance, and Hébert, Chas. Pierre, equal; Gillespie, Kate M.; McMinn, Alex. K.; Borden, Eunice L.; Stevenson, Fred. K.; Deery, M. Jean H. Class III.—Foster, Mary W.; Macdiarmid, Margaret L.; Lewis, Esther E.; McGreer, E. D'Arcy; Bunt, Lemuel O.; Reid, Regina V.; Reford, Lewis E. Aegrotat Standing.—Ford, Katherine M.; Symonds, V. Kingsley.
- DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE QUALIFIED TO OBTAIN THE DEGREE OF B.A.
- Coveler, Harry A.; Eberts, Harold F. H.; McClure, James C.; Murray, William A.
- DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE QUALIFIED TO OBTAIN
  THE DEGREE OF B.A. ON COMPLETION OF THE SECOND YEAR
  IN MEDICINE.
  - Boyce, J. Clifford; Breitman, Reuben; Bustin, Howard B.; McIntosh, Clarence A.; McKinnon, James D.; Schleifstein, Jos. I.; Tarshis, Anny; Teitelbaum, Michael.
- DOUBLE COURSE STUDENTS IN ARTS AND DENTISTRY QUALIFIED TO OBTAIN THE DEGREE OF B.A. ON COMPLETION OF THE SECOND YEAR IN DENTISTRY,

Bourke, Wm. M.; Hooper, Willis M.

DOUBLE COURSE STUDENT IN ARTS AND APPLIED SCIENCE QUALIFIED TO OBTAIN THE DEGREE OF B.A.

Smith, Robert M.

PASSED FOR THE DEGREE OF B.SC. (IN ARTS.)

IN THE ORDINARY COURSE.

(In order of merit.)

- Class I.—Phillips, Otto B.; McCall, George R.; McGlaughlin, Wm. R. Class II.—None. Class III.—Rabinovitch, Boaz.
  - DOUBLE COURSE STUDENTS IN ARTS (B.SC. COURSE) AND MEDICINE QUALIFIED TO OBTAIN THE DEGREE OF B.SC. ON COMPLETION OF THE SECOND YEAR IN MEDICINE.
    - Freedman, Joseph; Kay, Edwin; Mirsky, Samuel; Rabinovitch, Jacob; Richardson, Eric C.; Rubin, Saul.

### PASSED FOR THE DEGREE OF B. COM.

## (In order of merit.)

Class I.—Werry, Wilfrid W. Class II.—Rutherford, William K.; Shapira, Joshua; O'Meara, Robert S., and Rutherford, John B., equal; Johnson, Arthur W.; Dougall, Greta E.; Blackman, Israel. Class III.—Lefkowitz, Abe W.; Friedman, Norman H.

## THIRD YEAR.

### HONOURS.

### B.A. Course.

## (Subjects arranged alphabetically.)

## In Chemistry and Biology.

Snyder, Evel	lyn A	. First	Class	Honours.
Henderson,	Jean T	. Secon	id Cla	ss Honours.

## In Classics.

Birkett, Winifred L	First Class Honours in Latin and
If we There was Market Annual Assessment	Second Class Honours in Greek.
Kerr, Thomas M. (Aegrotat in Greek)	First Class Honours in Latin

### In Economics and Political Science

in Economics an	a romital strence.
Peterson, Frederick O	First Class Honours and First
Pierce, Sydney D	Mackenzie ScholarshipFirst Class Honours and Second Mackenzie Scholarship.
Murray, Sidney G. } equal	
Rosenstein, Murray	First Class Honours.
McDougall, James M. (equal	
Copland, E. Bruce	
Mathewson, Clive	

## In English and French.

Sharples,	Doris K	. First	Class	Honours.
Shatford,	Ruth M	. First	Class	Honours.
Fry Mars	v T	Secon	d Cla	ss Honours

In Engl	ish	and	History.
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Avison, Henry R. C First Class Honours.
roley, Violet E First Class Honours
Harris, Richard CFirst Class Honours.
Macrae, Dorothy First Class Honours.
Reid, Janet L
Cousens, Henry
and Third Class Honours in
History
Howell, Muriel J Second Class Honours in English
and Third Class Honours in
History
McGoun, I. Winifred (aegrotat).

In English and Latin.

McPartlin, Elizabeth......Second Class Honours.

In English and Philosophy.

Stewart, Adela I. M..... First Class Honours.

In Latin and French.

Shea, Daniel F......First Class Honours in Latin and Second Class Honours in French.

In Modern Languages.

Klineberg, Adele..... Second Class Honours in German and Third Class Honours in French.

In Mathematics and Physics.

Patterson, Arthur L. Perry, Frances H. Pequal.....First Class Honours.

Tuffy, Magdalen E.......Second Class Honours in Mathe-

matics and Third Class Honours in Physics.

Prize.

PASSED THE THIRD YEAR EXAMINATIONS.

# 1. For Course Leading to B.A.

(Arranged in alphabetical order.)

Addy (s), Avison, Banfill, Birkett, Copland, Cousens, Davis, Elliot, Foley, Fry, Gaboury, Hall, Harris, Henderson, Holloway, Howell, Johnson, Kerr, Klineberg, Kneeland, McDougall, McPartlin, Macrae (D.), MacRae (S. E.) (s), Mathewson, Moore, Murray (s), Newnham, O'Hagan, Patterson, Perry, Peterson, Pierce, Reid, Rohrlich, Rosenstein (s), Rough (s), Sharples. Shatford, Shea, Smith, Snyder, Stewart, Tuffy, Webster, White. McGoun (aegrotat).

<sup>(</sup>s) Supplemental in one subject.

# 2. Double Course in Arts and Medicine (B.A., M.D.)

(On completion of the First Year in Medicine.)

Brown, Macdonald, Teggart.

# 3. Double Course in Arts and Applied Science (B.A., B.Sc.)

## 4. For Course Leading to B.Sc.

Hibbard (s), Irwin, Wilson.

# 5. Double Course in Arts (B.Sc.) and Medicine (B.Sc., M.D.)

(On completion of the First Year in Medicine.)

Alexander, Gradinger, Kanigsberg, Kennedy, McCulloch, Scheffer, Steine, Wolepor, Zuckerman.

### SECOND YEAR.

## HONOURS.

## In Chemistry.

Hunten, Kenneth W	First Class Honours.
Mossman, Donald D	Second Class Honours.
Hannen, Charles S	Second Class Honours.
Bi-hop, Gilbert	Second Class Honours.
Winn, Albert R	Second Class Honours.
Smith, Frederick McI	Third Class Honours.

## In Mathematics and Physics.

Adney, Francis G Pirst Class Honours.
Johnson, David M First Class Honours.
Crestohl, Max N Second Class Honours in Mathe-
matics and Third Class Hon-
ours in Physics.
Freeman, Harold S Second Class Honours in Mathe-
matics and Third Class Hon-
ours in Physics.

# In Latin (Course 7.)

Wood-Legh, Kathleer	L Second	d Class Honours.
Cowan, Adelaide C	Third	Class Honours.

### PRIZES.

Willard, Eugen	e W	7., Jr.	 	. First N	Jackenz:	ie Sc	holarship.	
Read, Stanley	М.	E	 	.Charles	s Willian	n Sn	yder Men	iorial
							English	
				Econ	omics.			
C . C	1 7	_		31 '1 C	T	n . :		

Ginn, George W. C......Neil Stewart Prize.

<sup>(</sup>s) Supplemental in one subject.

### PASSED THE SECOND YEAR EXAMINATIONS.

## 1. Course Leading to B.A.

Class I.—LeMessurier and Willard, equal; Cowan, Walter, Spector, Perry. Class II.—Moore (A. F.), Heron, Foster, Amaron, Banfill; Mettarlin and Rooke, equal; Read, Dörken, Ball, Goldblatt, Fair, Wood-Legh, Laurin, Laidlaw (s); Collins and Holtham, equal; Davidson; Gittleson and Wilson (W. H.), equal; Ginn, Slack, Beattie; Ogilvy and Van Vliet, equal; Evans (K. J.). Class III.—Anderson (s), Stewart; Freedman and Hart, equal; Beckwith and Lummis, equal; Evans (A. L.), Radmore, Kerr (s); Falconer and Puddicombe, equal; Grigg(s); Jacobs and McLeod, equal; Fitch, Clark, Craik (s), Levinson; James and Moore (E. N.), equal; Ballantyne, Wighton; Calder and Kert, equal; Teed, Allan, Marsh, Palmer (s), Woodhouse (s), McPhail (s), McGerrigle, Wells (s), Lochead (s).

## 2. Double Course, B.A., B.Sc.

Class I.-None. Class III.-None. Class III.-Prudham.

## 3. Course Leading to B.Sc.

Class I.—None. Class II.—Paxton, Freyvogel, Canning, Garneau (s), Cantley. Class III.—Liffiton.

## 4. Course Leading to B.H.S.

Class I.—None. Class II.—None. Class III.—Reyner, Knowlton, Hodge.

## 5. Double Course, B.Sc., M.D.

(On completion of certain Medical subjects.)

Lacowitsky, Millen.

## 6. Course Leading to B. Com.

Class I.—Kaplan, Dustan, MacKinnon, Shea, Holland, Caplan, Lazier.

Class II.—O'Brien, Elderkin; Ellin and Snyder, equal; Smith
(P. G.), Nichol (G. H.), Wilson (D. G.), Tyler, Windatt,
Falconer; Cockshutt and Dobell and Mullen, equal; Jones,
Shecter. Class III.—Becker, MacMahon; Hughes and Richter (s), equal; Kee, Steine, Fraser (s).

### FIRST YEAR,

### PRIZES.

<sup>(</sup>s) Supplemental in one subject.

# PASSED THE FIRST YEAR EXAMINATIONS.

## I. Course Leading to B.A.

Class I.—Dawson, Fotos (H.), Alexander, Fotos (J.), Blumenstein, Batshaw. Class II.—Massy-Bayly, Bethel, Rountree, Silverstone, Russel, Miller, Cameron, Fergusson, Lafleur, Wainer, Bishop (s), Cope, Sessenwein. Class III.—Dyke, Murray, Cunliffe, Wevrick, Macmillan (M. V.), Feilders (s), Burrows, Webster (s), Boyes (s), Stone, Herzberg, Macrae, Mendelovitch, Robins; Brownstein and Thomson, equal; Johnston, Matheson, Greenblatt, Morton, Scharf (s), Teakle; Silverman (s) and Wilkinson (s), equal; Cohen (B.) (s), Hampson (s), Atkinson (s); McLellan (s) and Ross (s), equal; MacMillan (H. D) (s), Charness (s), Elliot (s), Brooks (s), Pennington, Jackson (s), Blundell (s).

# 2. Course Leading to B.Sc.

Class I.—None. Class II.—Sangster: Robertson (C. E.) and Robertson (W. L.), equal; Conner, Basken, Steine: Chase and Nieghorn, equal. Class III.—Ross, Chave (s), Vineberg, Watt (s), Berlind (s). Howe (s).

## 3. Course Leading to B. Com.

Class I.—Goldsmith, Friedman, Ogilvie, Negru, Morris. Class II.—Rabinovitch, Vanovitch, Kennedy, Leckie, Emo, Buzzell, Fels, Taprell. Brenchley: Campbell and Stephen, equal: Gauthier (s), Magid. Stanfield (s), Matthews. Class III.—Stevens; Browne and Winslow, equal: Allan, Franklin (s). Scobell: Brewer and Mitchell (N. R.), equal: Connor, Neel, Gaboury, Martin (s), McCullough (s), Lane (s), Bryce (s), O'Shea (s), Humphrey, Gamble (s), Clarke (T. E.) (s), Chamberlain (s), Carter (s).

GRANTED YEAR ON ACCOUNT OF ENLISTMENT.

(In alphabetical order.)

### SECOND YEAR.

Course Leading to B. Com.

Frederick (W. D.) (s), Smith (C. B.).

## FIRST YEAR.

## Course Leading to B.A.

Hatcher, Hutton, Kelloway, Lloyd, McLetchie.

## Course Leading to B. Com.

Creelman, Currie, Duncan, Easson (s), Gow, Graham (A. M.) (s), Mitchell (G. W.), Montgomery, Tremain, Ware (s), Wightman, Willoughby.

<sup>(</sup>s) Supplemental in one subject.

# STANDING IN SEVERAL SUBJECTS.

(Arranged alphabetically in order of Departments.)

### DEPARTMENT OF BOTANY.

### Course 2.

Class I.—Shatford, Jacobs, Banfill; Cantley and Freyvogel and Knowlton, equal. Class II.—Armstrong, Laidlaw, Laurin, Foster. Class III.—Contant, Canning, Reyner, Owens; Campbell (E. M.) and Hodge, equal.

Course 4.

Class I.—Snyder. Class II.—Burke (K. M.), Henderson. Class III.
—None.

### Course 5.

Class I.-Dart. Class II.-Snyder, Henderson. Class III.-None.

### Course 7.

Class I.—Godwin, Spier. Class II.—Higginson, Rabinovitch (B.).
Class III.—None.

Course 8.

Class I.-Godwin, Spier. Class II.-Higginson. Class III.-None.

### DEPARTMENT OF CHEMISTRY.

## Course 1.

Class I.—Chase, Laurin; Heron and Johnson (D. M.), equal; Moore (A. F.), Crestohl; Howell and Neighorn, equal; Chave; Banfill and Freeman, equal; Laidlaw and Robertson (C. E.) and Sangster and Slack, equal; Perry. Class II.—Steine, Basken, Conner; Beattie and Howe, equal; Ross, Smith (J. R.); Berlind and Campbell (E. D.), equal; Watt and Wighton, equal. Class III.—Fraser (C. B.) and Vineberg, equal; Brault and Monaker, equal; Vanier, Dawson (J. E.), Shapiro, Branch; Gilday and Hawker, equal; Crossley, Wevrick (N.); Haight and Russel, equal.

## Course 2 (Part 1).

Class I.—Hunten, Steine (B. F.), Mossman, McCulloch, Kennedy (W. R.), Bishop, Alexander (B.); Garneau and Macpherson, equal. Class II.—Wolepor, Hannen, Irwin; Scheffer and Smith (F. M.) and Winn and Zuckerman, equal; Canning. Class III.—Hershon, Gradinger; Burke (K. M.) and Liffton and McLean (D. V.), equal; Kanigsberg, Mitchell (J. I.).

## Course 2 (Part 2).

Class I .- Spier, Godwin. Class II.-None. Class III.-None.

## Course 3 (a).

Class I.—Adney, Hunten; Hannen and Winn, equal; Mossman, Bishop, Snyder; Freyvogel and Millen, equal. Class II.—Liffiton and Paxton, equal; Wilson (C. R.), Smith (F. M.); Lacowitsky and Mitchell, equal; Leggatt, Garneau, Macpherson, McLean, Henderson. Class III.—Bernstein (J. C.); Finkelstein and Schwartzman, equal; McConnell (M.).

## Course 3 (b).

Class I.—Hannen, Spier; Freyvogel and Godwin, equal. Class II.—Millen; McLean and Mitchell (J. I.), equal; Mossman and Schwartzman, equal; Garneau, Paxton; Bishop and Smith (F. M.), equal; Leggatt; Hunten and Winn, equal. Class III.—Adney, Lacowitsky, Macpherson, Finkelstein; Armstrong and Liffiton, equal; Wilson (C. R.).

## Course 4.

Class I.—Adney, Winn, Armstrong; Steine and Zuckerman, equal; Hunten. Class II.—Garneau, Canning, McCulloch, Kennedy, Bishop, Wolepor; Freyvogel and Mossman, equal; McLean and Smith (F. M.), equal. Class III.—Alexander, Mitchell, Scheffer, Liffiton; Hannen and Paxton, equal; Campbell (E. M.); Gradinger and Macpherson, equal; Kanigsberg, Leggatt.

### Course 5.

Class I.—Phillips, Barnes (E. L.). Class II.—McCall. Class III.—Foran.

### Course 6.

Class I.—Phillips, Roston. Class II.—Olding, Larkin. Class III.—Irwin.

### Course 7 (a).

Class I.-Foran. Class II.-None. Class III.-None.

## Course 7 (b).

Class I.—Hemming, Barnes (E. L.); Larkin and Mirsky, equal. Class II.—Phillips, Olding, Kay, Richardson. Class III.—Rabinovitch (J.), Freedman, Rabinovitch (B.).

### Course 8.

Class I.-Olding, Roston. Class II.-Larkin. Class III.-Hemming.

### Course 9.

Class I.—Barnes (E. L.) and Phillips and Roston, equal; McCall.

Class II.—Larkin, Olding; McLean (D. V.) and Wilson (C. R.), equal. Class III.—None.

### Course 10.

Class I.—Foran, Barnes (E. L.). Class II.—Reyner, Snyder, Hodge, Knowlton. Class III.—Henderson.

### Course 12.

Class I.-Phillips. Class II.-None. Class III.-None.

### Course 13.

Class I.-None. Class II.-None. Class III.-Barnes (E. L.), Foran.

### Course 14.

Class I.—Roston, Phillips; Hemming and Olding, equal. Class II.—Barnes (E. L.), Foran. Class III.—None.

### Course 15.

Class I.—Hemming. Class II.—Barnes (E. L.); Foran and Phillips, equal; Olding. Class III.—Roston.

### DEPARTMENT OF CLASSICS.

### Greek: Course 1.

Class I.—Fotos (H.), Fotos (J.). Class II.—Wilkinson. Class III.—Scharf, Teakle.

### Greek: Course 3.

Class I.—Cowan (A. C.). Class II.—LeMessurier and Wood-Legh, equal; Goodland. Class III.—Stone, Boyes, Lummis, Ginn, Wilson (W. R.), Radmore, Lenan; McFarlane and McGerrigle, equal; Edgecombe, Davis.

### Greek: Course 4.

Class I.—None. Class II.—Collins. Class III.—None.

### Greek: Course 6.

Class I .- Holland. Class II .- None. Class III .- Birkett.

### Greek: Course 8.

Class I.—Holland and Kerr, equal. Class II.—Birkett. Class III.—None.

## Latin: Course 1.

Class I.—Dawson (K. H.); Cowan and Massy-Bayly, equal; Fotos (H.), Alexander, Fergusson; Bethel and Blumenstein and Fotos (J.), equal. Class II.—Batshaw, Cunliffe, Cohen (B.); Miller and Russel (E.), equal; Feilders, Rountree; Silverstone and Wevrick (S.), equal; Bishop, Atkinson; Charness and Sessenwein, equal; Murray, Brownstein. Class III.—Macmillan (M. V.) and Simpson (R. G.), equal; Wilkinson; Lafleur and Macrae (R.), equal; Michlin; Cope and Johnston (F.), equal; Burrows; Boyes and Greenblatt and Ross (D. V.) and Thomson, equal; Cameron and Dyke and Teakle, equal; Grant and Wainer, equal; Matheson, Elliot; MacMillan (H. D.) and Morton and Stone, equal; Lenan and Robins, equal; Campbell and Mendelovitch, equal; Blundell and Brooks and Clarke and Herzberg (E. L.) and Pennington and Pidgeon and Safford and Scharf and Wheeler, equal.

### Latin: Course 2.

Class I.—Willard, Cowan, Perry. Class II.—Spector; Stewart and Wood-Legh, equal; Gittleson; Dörken and Goldblatt, equal; Heron; Ball and Foster and Howell, equal; Moore (A. F.), Walter; Addleman and Freedman, equal; Hart. Class III.—McLeod; Cross and Evans (K. J.), equal; Kert and Van Vliet, equal; Amaron and Banfill and Davidson and Ogilvy, equal; Campbell (L. A.) and Mettarlin, equal; Bourgoin and Rooke and Slack, equal; McGerrigle and Puddicombe, equal; Fitch and Marsh and Read, equal; Shirriff and Shlakman, equal; Clark and Hutcheson and Teed and Wilson (W. H.), equal; Fraser (D. A.); Allan and Prudham, equal; Ballantyne and Jacobs and Levinson, equal; Beattie and Lummis, equal; Campbell (E. D.) and James and Kydd and Laurin, equal; Owens; Brown and Holtham, equal; Beckwith and Lochead and Moore (E. N.), equal; Wadsworth and Wighton, equal; Calder and Evans (A. L.) and Fair and Kerr and Medbury and Russel (D.), equal.

### Latin: Course 4.

Class I.—Kerr, Shea, Birkett. Class II.—McPartlin. Class III.—None.

## Latin: Course 6.

Class I.—Kerr, Birkett. Class II.—Shea, McPartlin. Class III.—None.

### DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

### Course 1.

Class I.—Willard, Goldblatt, Read (S. M. E.), Johnson (D. M.), Cowan; Fair and Spector, equal; Heron, Wilson (W. H.); Moore (A. F.) and Rooke, equal; Brown, Elliot (H. L.), Levinson. Class II.—Shlakman, Puddicombe; Davidson and Foster and Kydd, equal; Gaukrodger, Clark; Dörken and Le-Messurier, equal; Calder and McLeod, equal; Ballantyne and Holtham, equal; Craik and Fraser (C. B.) and Hutcheson, equal; Campbell (E. D.) and Palmer and Wood-Legh, equal. Class III.—Moore (E. N.) and Perry (M. A.), equal; Van Vliet, Marsh, Cross; Beckwith and James and Ogilvy and Simpson (R. G.), equal; Johnston (J. L.) and Pick, equal; Edgecombe; Prudham and Slack; equal; Newnham; Evans (K. J.) and Joseph and Teed, equal; Freedman; Epstein and Kert and Wighton, equal; Dobbie and Hart and Wells and Wilson (W. R.), equal; Strange, Allan.

### Course 2.

Class I.—Farthing, Davis, Rohrlich. Class II.—McDougall, Pierce, Peterson; Murray and Rosenstein, equal; Copland, O'Hagan. Class III.—Gaboury, McMinn, Reyner, Webster, Knowlton, Hodge, Addy, Mathewson.

## Course 3.

Class I.—Murray, Peterson, Moule; Pierce and Rohrlich, equal. Class II.—Rosenstein, Barnes (D. S.), Mills, O'Hagan, Lefsrud. Class III.—Leslie, McDougall; Copland and Gaboury, equal; Tait, Cantley, Mathewson (C.), Webster, Addy, Bunt.

### Course 6.

Class I.—McGoun; Farthing and Fife, equal; Peterson and Sperber, equal; Davidson, Ross, Pierce. Class II.—Raphael, Borden (H.), Rosenstein. Stevenson; Cameron and Copland and Echenberg, equal; Rohrlich, Franklin, Kern (L. W.); Common and Kern (M. J.) and Rowat, equal. Class III.—O'Hagan; McDougall and Murray, equal; Gaboury, Pratt, Addy, Mathewson, Webster.

### Course 7.

Class I.—Fife and Raphael, equal; Farthing, Peterson, Pierce; Borden (H.) and Kern (L. W.), equal; Davidson; Kern (M. J.) and Rosenstein and Sperber, equal. Class II.—Rohrlich, Stevenson, Common; Murray and O'Hagan and Ross, equal; Cameron and Mathewson and Pratt, equal; McDougall. Class III.—Echenberg, Franklin, Copland, Gaboury; Addy and Webster, equal.

### Course 10.

Class I.—Fife; Cameron (K. L.) and Common and Sperber, equal; Kern (L. W.) and McCall, equal. Class II.—Ross; Borden (H.) and Stevenson, equal; Raphael, Pratt, Rowat; Davidson and Kern (M. J.), equal. Class III.—Bagg; Echenberg and Franklin, equal.

### Course 11.

Class I.—Fife, Ross, Cameron (K. L.); Borden (H.) and Davidson and Raphael and Sperber, equal. Class II.—Kern (M. J.); Common and Stevenson, equal; Pratt, McCall, Kern (L. W.). Class III.—Franklin, Echenberg.

## Course 12.

Class I.—Fife and Raphael, equal; Kern (L. W.). Class II.—Borden (H.) and Kern (M. J.), equal; Pratt and Ross, equal; Sperber, Davidson, Common. Class III.—Cameron (G. M.) and Cameron (K. L.) and Franklin and Johnson (A. W.), equal; Echenberg and Moule, equal; O'Meara; Friedman and Lefkowitz and Macdiarmid, equal.

### DEPARTMENT OF EDUCATION.

# Course 1 (Third Year).

Class I.—McVittie, Reid (J. L.), Macrae (D.). Class II.—Stewart. Savage (C. H.), McPartlin; Kerr and Tuffy, equal; Banfill. Class III.—Tait, Smith (A. V.); Hibbard and Kneeland, equal; Holloway and Klineberg, equal; Joseph; Foley and Howell, equal; Mathewson (D. R.).

## Course 2 (Fourth Year).

Class I.—Holland, McVittie, Savage (C. H.). Class II.—MacIntosh, Davidson; Burke (K. M.) and Ford (C.) and Husk, equal; Deery and Macdiarmid and Mills, equal; Cameron (K. L.) and McGreer and Thornton, equal; Campbell, Lewis. Class III.—Mathewson (D. R.); Cockfield and Larkin, equal; Barnes (D. S.), Silverman.

### DEPARTMENT OF ENGLISH.

### Course I.

Class I.—Massy-Bayly; Cunliffe and Feilders and Matheson, equal; Cameron and Fotos (J.), equal. Class II.—Batshaw, Webster; Crossley and Fotos (H.), equal; Bethel and Fortune and Goodland, equal; Chave and Layhew, equal; Robertson (W. L.); Klaehn (H.) and Murray, equal; Heillig and Klaehn (I.) and Lenan and Pidgeon, equal; Creelman and McKeown, equal; Dyke and MacMillan (H. D.), equal; Burrows and Eddy and McNaughton (C. H.) and Scharf, equal; Alexander and Bishop and Foster and Johnson (G. G.) and Lafleur, equal. Class III.—Macrae (R.) and Rountree, equal; Conner and Higginson and McCuaig and Ross (A. E.) and Tombs and Wylie, equal; Boyes and Herzberg (E. L.) and McLellan and Pennington and Wilkinson, equal; Cowan (A. C.) and Elliot and Ferguson and Lebster (E.) and McArthy and Thomas and Fergusson and Johnston (F.) and McArthur and Thomson, equal; Campbell and Cohen (H. A.) and Sangster and Watt, equal; Blumenstein and Gross and Macmillan (M. V.) and McWatters and Rothschild, equal; Cohen (B.) and McLaren (M. B. S.) and Marshall, equal; Dawson (K. H.) and Jacobs and Sanderson and Sessenwein and Shapiro (S.), equal; Glasberg and Russell (M.) and Monaker and Morton and Shapiro (E.) and Teakle, equal; Brooks and Gilday and Moule and Safford and Savage (M.) and Wheeler, equal; Atkinson and Ratner and Robins and Silverman and Steine, equal; Chase and Cope and Dawson (J. E.) and Robertson (C. E.), equal; Berlind and Cohen (S. M.), equal; Jackson and Russel (E. D.) and Silverstone and Stone and Vineberg and Wevrick (S.), equal; Charness and Gentle and McRae (C. R.) and Mendelovitch and Middlemiss and Nieghorn and Ross (D. V.) and Sewell, equal; Branch and Clarke and Miller, equal; Aikman and Edelberg and Mantell and Martineau and Segal, equal; Eliasoph and Hampson, equal; Howe and McNaughton (M. C.), equal; Bernstein (P. A.) and Blundell and Brownstein and Michlin and Stearns, equal.

# Course 2 (Men).

Class I.—Lafleur; Bethel and McGlaughlin, equal; Morris; Friedman and Tombs, equal; Blumenstein and Brewer and Heaney and Ogilvie and Ross (A. E.), equal; Alexander and Browne and Burrows and Campbell and Emo and Leckie, equal. Class II.—Scobell and Yanovitch, equal; Batshaw and Layhew and McCuaig and Magid and Robinson and Webster, equal; Charness and Dawson and Goldsmith and Hodgson (D. M.) and McKeown and O'Shea and Rabinovitch, equal; Boyes and Howe, equal; Brenchley and Chave and Cope and Eliasoph and Scharf, equal;

McCullough and Negru and Stevens, equal; Lenan and Stephen, equal; Fels; Martineau and Matthews and Steine, equal; Cohen (B.) and Fortune and Fotos and Greenblatt and Horwood and Lane and MacMillan and Savage (M. H.) and Wainer, equal; Foster and Vineberg, equal; Buzzell and Cunliffe and Goodland and Kennedy and Stanfield and Wylie, equal; Branch and McRae (C. R.) and Martin and Stone, equal; Eddy and Hamilton, equal; Michlin and Taprell, equal. Class III.—Hampson; Bonavitsky and Carter and Clarke (T. E.) and Mendelovitch and Sessenwein and Winslow, equal; Gauthier and Miller and Wilkinson, equal; Franklin and Gross and Middlemiss and Neel and Wheeler, equal; Edelberg and Gamble and Hodgson (J. P.) and Segal and Shackell, equal; Bernstein (P. A.) and Chase, equal; Mitchell (N. R.) and Ross (J. F.), equal; Conner (G. M.) and Wevrick (S.), equal; Brownstein and Silverstone, equal; Silver; Robertson and Sanderson, equal; Kornberg and Teakle, equal; Aikman and Bulgin and Monaker, equal; Berlind and Burland and Jacobs, equal; Gaboury; Allan and Chamberlain and Connor (C. F.), equal; Berzansky and Blundell and Bryce and Clark (J. A.), equal.

## Course 2 (Women).

Class I.—Dawson, Russel (E. D.), Massy-Bayly, Murray, Macmillan, Fotos, Bishop. Class II.—Grant, Matheson; Macrae and Sangster, equal; Glasberg; Basken and Cowan and Morton, equal; Rountree: Cameron and Dyke and Elliot and Johnston (F.), equal; Feilders, Shapiro (E.); Herzberg (A. M.) and Herzberg (E. L.) and Robins and Thomson. equal: Gilday and Robertson, equal; Ross and Rothschild, equal. Class III.—Fergusson and Higginson and Russell (M.), equal; Klaehn (I.), McLaren; Nieghorn and Watt, equal; Pidgeon; Campbell and McArthur, equal; Cohen; Atkinson and McNaughton, equal; Segal; Clarke and Klaehn (H.) and Safford and Silverman, equal; Brooks and Heillig and Johnson (G. G.) and Marshall and Reid, equal; McLellan, Ratner; McWatters and Moule, equal; Crossley, Shapiro (S.), Pennington; Creelman and Jackson, equal.

# Course 3 (Men).

Class I.—Walter, Willard, Spector; Amaron and LeMessurier, equal; Mettarlin; Freeman and Wilson (W. H.), equal; Egerton; Cowan and Read, equal; Allan and Johnson and Puddicombe and Woodhouse, equal; Cantley and McGlaughlin and McLeod and Van Vliet, equal. Class II.—Addleman and Anderson and Ballantyne and Brown and Craik and Holtham and McGerrigle and Moore (E. N.) and Ogilvy, equal; Ginn and Levinson, equal; Howell and Wells and Whitmore, equal; Collins and Epstein and Goldblatt, equal; Crestohl and Edgecombe and Fraser (D. A.) and McFarlane, equal; Falconer, Prudham; Bishop and Finkelstein, equal; Bernstein and Clark and Davidson and Marsh and Strange, equal; Schwartzman; Calder and Hannen and Hutcheson and Hudon, equal; McLean; Adney and Burke (K. M.) and Lochead, equal. Class III.—Lefsrud and Lummis, equal; Hunten and Smith (F. M.), equal; Winn; Moore (A. F.) and Mossman, equal; Macpherson, Lacowitsky; Radmore and Wadsworth, equal; McIntyre and Owens, equal; Smith (J. R.), Burnett, Heron.

## Course 3 (Women).

Class 1.—James: Kerr and Liffiton and Paxton and Rooke, equal; Foster and Shlakman, equal; Leggatt; Campbell (L. A.) and Grigg and Perry, equal. Class II.—Evans (K. J.) and Fair and Pick, equal; Laidlaw and Roy, equal; McLean, Teed; Cross and Dorken and Freedman and McPhail and Russel (D. M.), equal; Hart, Alexander, Johnston; Beckwith and Gittleson, equal; Scovil and Slack, equal; McEwen; Campbell (E. M.) and Gillies and Kydd and Mitchell and Wood-Legh, equal. Class III.—Knowlton; Banfill and Evans (A. L.), equal; Wighton, Ball, Reyner; Campbell (E. D.) and Fraser and Freyvogel and Fridmann and Jacobs, equal; Canning and Fitch, equal; Kert and Shirriff, equal; Dobbic and Laurin and Stewart, equal; Beattie, Hodge.

### Course 4

Class I.—Shlakman; Mettarlin and Pick and Read and Spector, equal; Perry, Walter: Laidlaw and Leggatt and Rooke, equal; Amaron and Evans (A. L.) and Foster and Fraser (C. H.) and Kerr and LeMessurier, equal. Class II.—Addleman and Goldblatt and Paxton, equal; Fridmann and Ogilvy, equal; Evans (K. J.); Hart and McEwen, equal; Allan and Ballantyne and Beattie and Campbell (L. A.) and Fraser (C. B.) and Freedman and Grigg and Kydd and Lefsrud and Shirriff and Slack and Stewart and VanVliet and Wells and Wighton and Wood-Legh, equal. Class III.—Scovil; Craik and Cross, equal; Ball and Clarke (V. M.) and Gillies and Holtham and Puddicombe and Russel and Teed, equal; Beckwith and Egerton and Lochead, equal; Lummis; Brown and Collins and Fitch and Jacobs and McPhail and Rabinovitch (R. S.), equal; Ginn, Iludon, Woodhouse; Gittleson and James and Roy and Strange and Whitmore, equal; Levinson and McIntyre, equal; Marsh; Burke K. M.) and Clark and Dobbie and Epstein and McGerrigle and McLeod, equal.

## Course 6.

Class I.—Foley and Reid (J. L.), equal; Banfill and Shatford, equal; Borden (E. L.); Harris and Newnham and Stewart, equal; Sharples; Fry and MacRae (S. E.), equal; Avison and Hall and Joseph, equal. Class II.—Husk and McPartlin, equal; Stevenson; Macrae (D.) and Moore, equal; Maclean (S. J. E.) and Wilson, equal; Cowans and Livingstone, equal. Class III.—Smith, Rough, Bullock; Howell and Tait, equal; Ayer and Davis and Kneeland, equal; Bernstein (R. G.).

### Course 7.

Class I.—Harris; Banfill and Newnham and Reid (J. L.), equal; Macrae (D.), Foley, MacRae (S. E.); Avison and Joseph, equal; Hall and Howell and White, equal. Class II.—Tait, Moore; Ayer and Smith, equal; Rough, Leslie, Davis. Class III.—Palmer, Kneeland; Bullock and Bunt, equal.

### Course 9.

Class I.—Harvey, Borden (E. L.), Campbell, Fry, Bagg; Foster and McGreer, equal. Class II.—Lewis, Ford (C.), Livingstone, Macdiarmid, Barnard, Husk, Deery; Harris and Reid (R. V.), equal. Class III.—None.

### Course 10.

Class I.—Bagg, Barnes (D. S.); Cameron (G. M.) and Cockfield and Hackett, equal; Harris, Shatford; Hall and Harvey and Moule, equal; Borden (E. L.) and McGreer and McPartlin and Sharples, equal. Class II.—Ford (C.) and Gillespie and Hébert, equal; Campbell, Bunt; Foster and Reford, equal; Livingstone and Mathewson (D. R.), equal; Reid (R. V.); Avison and Macdiarmid, equal. Class III.—Deery and Husk, equal; Lewis, Cousens.

### Course 11.

Class I.—Hackett; Barnes (D. S.) and Cockfield, equal; Gillespie, Campbell, Borden (E. L.), Macdiarmid, Barnard, Avison. Class II.—Cameron (G. M.), Husk, Lewis, Ford (C.), Deery, Foster, Cousens. Class III.—None.

### Course 12.

Class I.—Barnes (D. S.) and Cameron (G. M.) and Cockfield and Hackett, equal; Campbell. Class II.—Mathewson (D. R.); Ford (C.) and Reford, equal. Class III.—None.

### Course 13.

Class I.—Sharples, Shatford, Stewart, McPartlin. Class II.—Fry. Class III.—None.

### Course 14.

Class I.—Harvey. Class II.—Mathewson (D. R.). Class III.—None.

### Course 15.

Class I.—Shatford, Stewart. Class III.—Foley. Class III.—Bagg, Moore, Bullock, Davis.

Course 17.

Class I.—Barnes (D. S.); Cockfield and Hackett and Macrae (D.), equal; Bagg; Newnham and Stewart, equal; Fry and Harvey and Tait, equal. Class II.—Reid (R. V.), Newnham; Cousens and Gillespie and Reid (J. L.) and Sharples, equal; Banfill and Rough, equal; Borden (E. L.) and Howell, equal; Bunt and Deery, equal; McGreer, Reford, Foley. Class III.—Hébert and Mathewson, equal.

### Course 18.

Class I.—Reid (J. L.), Macrae (D.); Mills and Moore and Wilson, equal. Class II.—Howell and McPartlin, equal; Joseph and MacRae (S. E.), equal; Lewis, Bunt, Smith, Gillespie, Davis; Leslie and White, equal. Class III.—Kneeland.

### DEPARTMENT OF GEOLOGY.

### Course 1.

Class I.—Hébert and Holtham and Johnson (A. S.) and Newnham, equal; Banfill and Smith, equal; McCall, Lummis, Beckwith, Hall; Moore (D. H.) and Paxton, equal; MacRae (S. E.) and Radmore, equal. Class II.—Canning, Freyvogel; Cantley and Reid (R. V.), equal; Campbell (E. D.); Alexander and Davis and Tait, equal; Evans (A. L.); Anderson and Dobbie and Leggatt and McEwen, equal. Class III.—Reford, Rough, Bullock.

### Course 2.

Class I.—Dart and Phillips, equal; Armstrong, Cameron (G. M.).

Class II.—Deery; Gillespie and Stevenson, equal; Campbell (S. D.) and Ford (C.), equal; Foster. Class III.—Lewis, Borden (E. L.), Macdiarmid, White.

### Course 5.

Class I.—Hibbard. Class II.—Wilson, Hébert, Irwin. Class III.— Reford.

### Course 6.

Class I.—Hibbard. Class II.—Wilson, Irwin, Brault. Class III.—None.

### CANADIAN GEOLOGY.

Class I.—Armstrong. Class II.—None. Class III.—None.

### CRYSTALLOGRAPHY AND OPTICAL MINERALOGY.

Class I.-Dart, Armstrong. Class II.-None. Class III.-None.

### GEOLOGICAL COLLOQUIA.

Class I.—Armstrong and Dart, equal. Class II.—None. Class III.—None.

## HISTORICAL GEOLOGY.

Class I.—Armstrong. Class II.—None. Class III.—None.

### ORE DEPOSITS AND ECONOMIC GEOLOGY.

Class I.—Dart. Class II.—None. Class III.—None.

### PALAEON TOLOGY.

Class I.—Dart, Armstrong. Class II.—None. Class III.—None.

### PETROGRAPHY (ELEMENTARY).

Class I.—Armstrong. Class II.—None. Class III.—None.

### PETROGRAPHY (ADVANCED).

Class I.—Dart, Armstrong. Class II.—None. Class III.—None.

### PHYSIOGRAPHY.

Class I.—Dart, Armstrong. Class II.—None. Class III.—None.

### DEPARTMENT OF HISTORY.

### Course 1.

Class I.—Dawson (K. H.), Massy-Bayly; Fotos (J.) and Stone, equal; Tombs; Bethel and Cope, equal; Boyes, Batshaw; Bishop and Cowan, equal; Silverstone; Burrows and Fotos (H.) and Herzberg (E. L.) and Murray and Sessenwein, equal; Aikman and Cameron and Feilders and Gnaedinger and Morton and Ross (D. V.), equal. Class II.—Klaehn (H.) and Klaehn (I.), equal; Charness and Macrae and Webster, equal; Alexander and Russel (E. D.), equal; Blumenstein and Elliot, equal; McKeown and MacMillan (H. D.) and Silverman and Wilkinson, equal; Dyke and McCuaig and McLaren (M. B. S.) and Safford and Teakle, equal; Fortune and Macmillan (M. V.) and Miller, equal; Lafleur and Rountree, equal; Goodland and Lenan and Thomson and Scharf and Wevrick (S.) and Wylie, equal; Campbell (I. J.) and Eliasoph and Glasberg and Moule, equal; Cohen (B.) and Layhew and Wainer, equal; Hampson and Matheson and Russell (M.), equal; Greenblatt and McLaren (D. J. K.) and Mantell and Sanderson and Wilson (W. R.), equal; Brooks and Johnston (F.) and Pidgeon and Wheeler, equal; Bernstein (P. A.) and Clarke and Eddy and Foster and Fergusson and Grant and McNaughton and Mendelovitch and Michlin, equal. Class III.—Gentle and Shapiro (E.), equal; Johnson (G. G.); Atkinson and Jackson and Reid, equal; Mc-Arthur; Cunliffe and Heillig and McWatters and Pennington, equal; Cohen (S. M.); Marshall and Robins, equal; Herzberg (A. M.); McLellan and Middlemiss and Rothschild, equal; Creelman, Brownstein; Blundell and Sewell, equal; Edelberg and Smith, equal.

Course 2.

Class I.—Walter, Willard, Amaron, Foster; Rooke and Spector, equal; Wood-Legh, Moore (E. N.); Campbell (L. A.) and Moore (A. F.), equal; Campbell (E. D.) and Fair and LeMessurier, equal; Ginn and Read and Shlakman, equal. Class II.—Brown and Grigg and McFarlane and Puddicombe, equal; McLeod and VanVliet and Wilson (W. H.), equal; Fraser (C. B.) and James and Johnston and Prudham, equal; Davidson and Freedman and Fridmann, equal; Anderson and Cowan and Wadsworth, equal; Levinson and Pick, equal; Beattie and Calder and Laidlaw, equal; Holtham and West, equal; Heron and Kerr and McPhail, equal; Kydd and McEwen and McGerrigle and Shirriff and Whitmore, equal; Hart and Palmer, equal; Dörken and Marsh, equal; Wighton; Craik and Evans (A. L.) and Wells, equal. Class III.—Clark and Edgecombe, equal; Evans (K. J.); Beckwith and Hutcheson, equal; Owens, Strange, Allan, Egerton; Burnett and Dobbie, equal; Wilson (W. R.), Ballantyne, Simpson (R. G.).

## Course 3.

Class I.—Holland, Reid (J. L.), Hackett, Harris, Cockfield, Mills, McGoun, Moule. Class II.—Foley, Barnes (D. S.); Borden (E. L.) and Macrae (D.), equal. Class III.—Gillespie; Husk and Parkes, equal; Macdiarmid, Avison, MacRae (S. E.), Reid (R. V.), Howell, Smith, Cousens.

### Course 4.

Class I.—Harris, Holland, Foley, Reid (J. L.), Macrae (D.), Avison. Class II.—Johnson (A. S.), Moule, Cousens. Class III.—Howell, Deery.

### Course 5.

Class I.—Hackett; Cockfield and Holland, equal; Reid (J. L.), Harris, Foley; Avison and Mills, equal; Macrae (D.). Class II.—Reid (R. V.), Bagg, Parkes. Class III.—Cousens, Husk, Howell.

### Course 6.

Class I.—Hackett, Cockfield; Harris and Mills, equal; Foley; Avison and Reid (J. L.), equal; Macrae (D.). Class II.—Barnes (D. S.), Gillespie, Husk, Borden (E. L.); Cousens and Howell, equal. Class III.—None.

### Course 7.

Class I.—Moule, Hall. Class II.—Macdiarmid and Moore, equal; Smith. Class III.—Kneeland.

## Course 8.

Class I.—Hackett and Holland, equal; Cockfield. Class II.—Bagg, Husk. Class III.—None.

## Course 9.

Class I.—Rosenstein; Holloway and Peterson and Rohrlich, equal.

Class II.—Campbell; Joseph and Murray, equal; Ford (C.),

Leslie, Foster. Class III.—McMinn, Lewis; Lefsrud and McGreer, equal.

Course 10.

Class I.—Kern (M. J.) and Raphael, equal; Common, Kern (L. W.).

Class II.—Borden (H.), Pratt; Cameron (K. L.) and Davidson, equal; Bagg; Echenberg and Ross, equal. Class III.—None.

### DEPARTMENT OF MATHEMATICS.

# Course 1: Algebra.

Class I.—Blumenstein and Dawson (K. H.), equal; Rountree, Bethel; Fotos (H.) and Miller, equal; Robins; Alexander and Batshaw, equal; Russel (E.), Sangster, Klineberg (Q.), Nieghorn, Basken, Chave; Dyke and Vineberg, equal; Cameron, Jackson. Class II.—Wainer, Hampson: Conner and Cunliffe and Klachn (I.) and Macmillan (M. V.), equal; Macrae (R.) and Mendelovitch and Robertson (C. E.) and Steine, equal; Ross (A. E.); Klachn (H.) and McLaren (M. B. S.), equal; Massy-Bayly and Silverstone, equal; Campbell, Webster; Cope and Diffley and McNaughton (C. H.), equal; Fergusson and Greenblatt and Pennington and Silverman, equal. Class III.—Cohen (B.) and Gentle, equal; Atkinson and Brownstein and

Ross (D. V.), equal; Burrows and Fotos (J.) and Sessenwein, equal; Heillig; Chase and Herzberg (E. L.) and Stone, equal; Berlind and Moule, equal; Bernstein (P. A.) and Higginson, equal; Thomson; Aikman and Wevrick (N.), equal; Petrie, Savage (M. H.); Armstrong (P. F.) and Foster, equal; Cohen (H. A.) and Eddy, equal; Charness and Matheson and Pidgeon, equal; Brooks and Grant, equal; Elliot and Johnston (F.) and Lafleur and Morton and Murray and Wevrick (S.), equal.

# Course 1: Geometry.

Class I .- Rountree; Alexander and Dawson (K. H.), equal; Robertson, Blumenstein. Class II.-Batshaw and Miller and Robins, equal; Fotos (H.); Kelloway and Silverstone, equal; Basken and Sangster, equal; Bethel and Charness and Eddy and Steine, equal; Cope and Dyke and McLetchie and Russel (E. D.) and Vineberg and Wainer and Webster, equal; Cameron and Conner and Cunliffe, equal; Macmillan (M. V.), Creelman; Green-Helling, equal, Machinian (M. V.), Greenman, Greenblatt and Silverman and Wevrick (S.), equal; Coyle and Heillig, equal. Class III.—Brownstein, Neighorn; Armstrong (P. F.) and Morton, equal; Burrows; Fergusson and Jackson and McLaren (M. B. S.), equal; Aikman and Chave and Fotos (J.) and Klaehn (I.) and Rezevsky and Safford, equal; Boyes and Howe and Hampson and Massy-Bayly and Sessenwein and Stone, equal; Goodland and Grant and Rosen (L.) and Wevrick (N.), equal; Atkinson and Bishop and Chase and Layhew and McLellan and Watt, equal; Berlind and Cohen (B.) and Elliot and Johnston (F.) and Lenan and Macrae and Ross (D. V.) and Wheeler, equal; Crossley and Haight and Matheson and Shapiro (S.), equal; Gentle and Tombs, equal; Herzberg (E. L.); Clarke and Feilders and Foster and Lloyd and Monaker and St. John, equal; Cohen (H. A.) and Hatcher and Hutton and Pidgeon, equal; Brown and Campbell and Fortune and Jacobs and Wylie, equal; Bulgin; Bernstein (P. A.) and Higginson and Lafleur and Mendelovitch and Michlin and Pennington and Reid, equal; Graham and Klineberg (Q.) and Murray and Wilkinson, equal.

# Course 1: Trigonometry.

Class I.—Wainer; Alexander and Dawson (K. H.) and Rountree, equal; Blumenstein; Conner and Miller, equal; Chave; Bethel and Robertson (C. E.) and Silverstone, equal; Batshaw, Ross (A. E.), Dyke, Macmillan (M. V.), Burrows, Fotos (H.); Armstrong (P. F.) and Sangster, equal. Class II.—Russel (E. D.) and Webster, equal; Cope and Mendelovitch, equal; Chase and Nieghorn and Steine, equal; Vineberg, Hampson; Stone and Thomson and Wevrick (S.), equal; Aikman; Basken and Massy-Bayly and Silverman, equal; Cohen (B.), Herzberg, Grant; Brownstein and Cameron and Howe and Jackson and Murray, equal. Class III.—McNaughton (C. H.) and Sessenwein, equal; Greenblatt; Lafleur and McGlaughlin and Matheson and Watt, equal; Boyes and Fortune, equal; Cunliffe; Fergusson and Simpson (R. G.), equal; Robins; Campbell and Heillig and Lamb and Pidgeon, equal; Cohen (H. A.) and

Goldblatt and Jacobs, equal; Johnston (F.) and McLellan and Wheeler, equal; Ross (D. V.), Forsyth; Fotos (J.) and Gentle and Macrae (R.) and Morton, equal; Charness; Bernstein (P. A.) and Monaker and Scovil, equal; Brooks and Graham, equal; McLaren (M. B. S.), Pennington.

Course 2: Geometry and Trigonometry.

Class I.—Robertson (W. L.). Class II.—Hannen, Mossman. Class III.—Smith (F. M.), Layhew, Teakle, McCuaig.

Course 2: Algebra and Theory of Equations.

Class I.—Robertson (W. L.), Layhew. Class II.—Hannen, Mossman, Teakle. Class III.—McCuaig and Smith (F. M.), equal.

Course 3: Algebra.

Class I.—None. Class II.—Falconer, Freeman, Crestohl, Jacobs (L.). Class III.—Smith (J. R.), McLean, Fraser (D. A.).

Course 3: Geometry.

Class I.—Crestohl. Falconer (K.). Class II.—None. Class III.—Alexander (K. N.) and Smith (J. R.), equal; Jacobs (L.).

Course 4: Analytical Geometry.

Class I.—Adney, Johnson (D. M.). Class II.—Hunten, Holloway. Class III.—Elliot, Prudham, Mitchell (J. I.), Bishop; Crestohl and Winn, equal; Freeman, Falconer, Johnson (A. S.), Hibbard.

Course 4: Infinitesimal Calculus.

Class I.—Johnson (D. M.), Adney, Holloway. Class II.—Hunten, Crestohl; Bishop and Freeman, equal; Falconer, Winn; Elliot and Prudham, equal. Class III.—Hibbard, Mitchell (J. I.), Johnson (A. S.).

Course 5.

Class I.—Johnson (D. M.), Adney, Patterson. Class II.—Hibbard, Freeman, Falconer. Class III.—Crestohl, Elliot, Prudham.

Course 7: Analytical Geometry of Three Dimensions.

Class I .- Perry, Patterson. Class II.- Tuffy. Class III.- None.

Course 7: Infinitesimal Calculus.

Class I.-Tuffy. Class II.-Perry, Patterson. Class III.-None.

Course 8: Theory of Functions of a Complex Variable.

Class I.—McPherson. Class II.—Thornton. Class III.—None.

Course 8: Theory of Functions of a Real Variable.

Class I.-None. Class II.-McPherson, Thornton. Class III.-None.

### Course 12.

Class 1.—Adney, Patterson, Perry (F. H.); Elliot and Hunten, equal; Tuffy. Class II.—Freeman, Macpherson. Class III.—Crestohl.

### DEPARTMENT OF MODERN LANGUAGES.

French: Course 1.

Class I.—Goldsmith, Fotos (J.), Fotos (H.), Cowan (A. C.), Blumenstein, Dawson (K. H.), Bishop. Class II.—Gaboury and Silverstone, equal; Alexander, Bethel, Negru, Teakle, Friedman, Brownstein; Fergusson and Rountree, equal; Ogilvie; Hodgson (J. P.) and Morris, equal; Morton and Wevrick (S.), equal. Class III.—Buzzell and Russel (E. D.) and Ratner and Silverman, equal; Robins and Sessenwein, equal; Kennedy; Berzansky and Clarke (T. E.) and Johnston (F.) and Rabinovitch and Tombs and Wainer and Webster, equal; Allan and Glasberg and Herzberg (A. M.) and Mathewson (F.) and Murray, equal; Hodgson (D. M.); Browne and Emo and Herzberg (E. L.) and Mendelovitch and Miller and Thomson, equal; Mitchell (N. R.) and Segal and Shackell, equal; Brewer and Dyke and Mantell and Matheson (J.) and Rothschild and Russell (M.) and Scovil and Yanovitch, equal; McArthur and McCullough, equal; Cope and Graham (G.) and Winslow, equal; Aikman and Atkinson and Connor (C. F.) and Fels and Jacobs and Moule and Stevens, equal; Brooks and Shapiro (E.), equal; Greenblatt and Hampson and Leckie and McLellan and Scobell and Taprell, equal; Blundell and Cunliffe and Edelberg and Magid and O'Shea and Stone, equal; Anderson and Clarke (J.) and Heillig and Macmillan (M. V.) and Neel and Pennington, equal; Jackson and Macrae (R.) and Stephen, equal; Burrows and Martin and Matthews, equal; Humphrey and Lane, equal; Campbell (H. S.) and Carter and Chamberlain and Cohen (H. A.) and Creelman and Eddy and Eliasoph and Elliot and Forsyth and Gamble and Klaehn (I.) and Kornberg and Layhew and MacMillan (H. D.) and Ross (D. V.), equal.

# French: Course 1 (Advanced).

Class I.—Massy-Bayly, Gauthier, Batshaw. Class II.—Lafleur, Cameron (M. B.), Franklin; Feilders and Gnaedinger, equal. Class III.—Martineau.

French: Course 2.

Class I.—Sangster; Robertson (C. E.) and Snyder (E.), equal. Class II.—Conner and Henderson, equal; Chave, Watt, Basken. Class III.—Steine, Nieghorn, Vineberg, Berlind, Monaker, Shapiro (S.), Ross (A. E.); Howe and Wevrick (N.), equal; Haight; Branch and Chase and Crossley and Gilday and Macpherson and Robertson (W. L.), equal.

### French: Course 3.

Class I.—Willard, Perry; Fair and Goldblatt, equal; Foster; Cameron and Campbell (L. A.) and Spector, equal. Class II.—Banfill,

Shlakman, Mettarlin, Ball, Dörken, Medbury, Burke (K. M.); Addleman and Gittleson, equal; Ogilvy; Laurin and Read, equal; Fitch and Howell, equal; Davidson. Class III.—Grigg and Wilson (W. H.), equal; Bissett and Craik and James and Kert and Moore (A. F.) and VanVliet, equal; Gillies and Kydd, equal; Hart, Stewart; Ballantyne and Cross and Levinson and Prudham, equal; Hutcheson and Lochead and Pick, equal; Calder and Palmer, equal; Teed and Wadsworth, equal; Allan; Epstein and McPhail, equal; Brown and Campbell (E. D.) and Marsh, equal; Owens and Puddicombe, equal.

## French: Course 3 (Advanced).

Class 11.—Walter. Cowan (D.), Amaron. Class 11.—McConnel (D.). Class 111.—Roy, Molson.

## French: Course 6.

Class I.—Shatford, Sharples; Contant and Harvey, equal. Class II.—Hébert, Silverman, Shea, Fry, Bullock. Class III.—McGreer. Gaboury, Elliot; Banfill and Pierce, equal; Mathewson (D.), Rough; McDougall and Klineberg, equal; Johnson (A. S.).

### French: Course 9.

Class I.—Hébert; Contant and Shatford, equal; Sharples; Harvey and Shea, equal. Class II.—Silverman. Class III.—Fry, Mathewson (D. R.), Klineberg.

### French: Course 10.

Class I.—Hébert, Shatford, Sharples; Contant and Harvey and Shea and Silverman, equal. Class II.—None. Class III.—Fry, Mathewson (D. R.), Bullock, Klineberg.

## German: Course 1 (a.)

Class 1.—Fotos (11.), Fotos (J.), Class 11.—Wainer; Herzberg (E. L.) and Shapiro (E.), equal; Bethel, Atkinson, Class 111.—Cameron (M. B.), Marsh, Segal, Feilders, Mantell, Silverman, McLeod.

### German: Course 1 (b).

Class I.—McGlaughlin, Robertson (C. E.), Conner. Class II.—Sangster, Robertson (W. L.), Garneau. Class III.—Basken and Weyrick (N.), equal; Berlind, Neighorn, Watt, Shapiro (S.), Chase; Gross and Steine and Vineberg, equal.

### German: Course 2.

Class I.—Herzberg (A. M.), Klachn (L.), Class II.—Klachn (H.), Klineberg (Q.), Class III.—Elliot, Dörken (E.).

### German: Course 3.

Class I.—Hunten, Bishop, Adney, Liffiton. Class II.—Hannen, Winn, Patterson. Class III.—None.

### German: Course 4.

Class I.—Ball. Class II.—Dörken (S. H.); Campbell (L. A.) and Fitch and Kert, equal. Class III.—Addleman.

German: Course 5.

Class I.—Silverman. Class II.—Klineberg. Class III.—None.

German: Course 8.

Class I.—Silverman. Class II.—Klineberg. Class III.—None.

German: Course 9.

Class I.—None. Class II.—Silverman. Class III.—Klineberg.

German: Course 10.

Class I.-None. Class II.-Silverman, Klineberg. Class III.-None.

DEPARTMENT OF ORIENTAL LANGUAGES.

### Course I.

Class I.-Rabinovitch (R. S.). Class II.-Parkes. Class III.-None.

### Course 2.

Class I.—Ginn; Anderson and Collins, equal. Class II.—Radmore, Edgecombe. Class III.—McFarlane, McIntyre.

### Course 3.

Class I.-White. Class II.-None. Class III.-None.

### Course 4.

Class I.-None. Class II.-None. Class III.-Peterson (N. E.).

### DEPARTMENT OF PHILOSOPHY.

## Course 1.

Class I.—LeMessurier and Walter, equal; Cowan and Heron, equal; Mettarlin; Fair and Read (S. M. E.), equal. Class II.—Moore (A. F.) and Rooke, equal; Addleman and Craik and Davidson and Gittleson and Wilson (W. H.), equal; Anderson and Clark (H. S.) and Whitmore, equal. Class III.—Grigg and Kerr, equal; Collins and Goldblatt and Hutcheson and McLeod and Ogilvy and Slack and Woodhouse, equal; Evans (K. J.) and Ginn, equal; Moore (E. N.). Fridmann; Ayer and Cross and Edgecombe and Lefsrud and McGerrigle and Radmore and Wells, equal; Freedman and Egerton, equal; Alexander; Calder and Jackson and Joseph and McPhail and Medbury and Wilson (W. R.), equal; Evans (A. L.), Gillies, Russel; Bourgoin and Kert and McFarlane and McIntyre and Stewart, equal.

### Course 2.

Class I.—Willard, LeMessurier; Clark and Cowan, equal. Class II.—Fair; Davidson and Mettarlin, equal. Class III.—Wilson (W. H.), Collins, Woodhouse; Moore (E. N.) and Radmore and Whitmore, equal.

## Course 3.

Class I.—Willard, Mills; Beattie and Fridmann and Gillespie and Moule and Stewart (A. E.), equal. Class II.—Evans (K. J.), Moore (A. F.), Amaron, Foster; Calder and Gittleson, equal; Reid (R. V.), McLeod; Fraser (C. H.) and Heron and Rooke, equal: Ginn. Class III.—McMath, Strange, Gillies, Wells, Kerr, Freedman (C.), Egerton, Hutcheson; Alexander and Bourgoin and McGerrigle and McIntyre and McPhail, equal.

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### Course 4.

Class I.—Davis and Stewart, equal. Class II.—Stevenson, Hall; O'Hagan and Richards, equal. Class III.—White, Livingstone, Kneeland.

### Course 5.

Class 1.—Farthing and Fife, equal; McMinn. Class II.—None. Class III.—None.

### Course 6

Class I.—Farthing, McMinn. Class II.—None. Class III.—None.

## Course 8.

Class I.—Farthing. Class II.—Copland. Class III.—Franklin.

### Course 11.

Class I.—Cameron (G. M.), Contant, Stewart. Class II.—Elliot. Class III.—None.

### Course 12.

Class I.—Newnham, Farthing. Class II.—Contant and Deery, equal. Class III.—Moore; Kneeland and Livingstone and Reford, equal.

### Course 13.

Class I.—None. Class II.—Copland, Reford. Class III.—None.

### Course 15.

Class I.—Klineberg and Newnham, equal. Class II.—None. Class III.—None.

### Course 19.

Class I.-Muir. Class II.-None. Class III.-None.

### DEPARTMENT OF PHYSICS.

### Course 1.

Class I.—Alexander, Dawson (K. H.), Steine. Class II.—Batshaw, Blumenstein, Ross (A. E.), Wainer; Lafleur and Mendelovitch and Silverstone, equal; Basken and Rountree, equal; Chase and Cope and Sangster and Webster, equal; Berlind and Chave and Conner and Fergusson and Howe and Sessenwein, equal. Class III.—Aikman; Bethel and Miller (D. B.), equal; Blundell and Cunliffe and Johnston (F.) and MacMillan (H. D.) and Miller (J. S.), equal; Cohen (B.) and Cowan and Dyke and Macrae (R.) and Robins and Russel (E. D.) and Scharf, equal; McLaren (M. B. S.) and Vineberg and Wevrick (S.) and Wylie, equal; Boyes and Eddy and Fortune and Hampson and McKeown and Murray and Wevrick (N.), equal; Burrows and McLellan and Robertson (C. E.) and Thomson, equal; Feilders and Gentle, equal; Grant and Greenblatt and Matheson, equal; Bishop and Brownstein and Charness and Dawson (J. E.) and Macmillan (M. V.) and Massy-Bayly and Stone, equal; Wheeler; Haight and Nieghorn, equal; Higginson; Bissett and Layhew and McCuaig and McWatters and Morton, equal; Branch and Watt, equal; Brooks and Bulgin and Cohen (H. A.) and Graham and Klineberg and McConnel (D.) and Russell (M.) and Tombs, equal; Bernstein (P. A.) and Goodland and Gross and Pennington and Wilkinson, equal; Creelman and Monaker and Petrie, equal; Jacobs and Teakle, equal.

## Course 2.

Class I.—Perry (F. H.), Robertson (W. L.). Class II.—Mossman; Hannen and Leslie, equal; Lacowitsky, Holloway. Class III.— Howell, Garneau, Bishop, Smith (F. M.), Millen; Finkelstein and Schwartzman, equal; Woodhouse; Duval and Mitchell, equal; Falconer.

## Course 3.

Class I.—Adney and Johnson (D. M.), equal. Class II.—Hunten, Perry (F. H.). Class III.—Hibbard and Winn, equal; Crestohl, Lacowitsky; Irwin and Larkin and Millen and Tuffy, equal; Macpherson, McLean, Freeman, Schwartzman.

# Course 4: Dynamics and Statics.

Class I.—None. Class II.—Patterson and Perry, equal. Class III.—None.

## Course 4: Mechanics.

Class I.—Adney, Johnson (D. M.). Class II.—None. Class III.— Johnson (A. S.), Elliot, Prudham, Crestohl, Holloway, Falconer.

### Course 5.

Class I.—Perry (F. H.), Adney. Class II.—Patterson. Class III.—
Tuffy, Irwin.

## Course 7.

Class I.-McPherson. Class II.-Thornton. Class III.-None.

Course 9: Electrical Measurements (Theory).

Class I.—None. Class II.—Thornton, Patterson, McPherson. Class III.—None.

Course 9: Electrical Measurements (Laboratory).

Class I.—McPherson; Patterson and Thornton, equal. Class II.—None. Class III.—None.

### Course 10.

Class I.—None. Class II.—McPherson. Class III.—Thornton.

### Course 12.

Class I.—Perry (F. H.). Class II.—McPherson and Patterson and Tuffy, equal. Class III.—Thornton.

## Course 13.

Class I.-None. Class II.-McPherson. Class III.-Thornton, Tuffy.

## Course 15.

Class I.-McPherson. Class II.-None. Class III.-None.

### DEPARTMENT OF ZOOLOGY.

### Course 2.

Class I.—Hemming, Cameron (G. M.), Hall (H. F.); Armstrong and Knowlton, equal. Class II.—Banfill (F. M.), MacLean (A. H.), Jacobs, Contant, Laurin, Hodge, Laidlaw. Class III.—Freyvogel and Reyner, equal; Campbell (E. M.), Canning, Teed, Cantley.

### Course 3.

Class I - Snyder. Class II. - Henderson. Class III. - Burke (K. M.).

## Course 5.

Class I.—Godwin and Kennedy and Steine, equal; Wolepor, Spier.

Class II.—Scheffer: Higginson and Zuckerman, equal; Alexander; Hershon and McCulloch, equal. Class III.—Gradinger,

Kanigsberg, Rabinovitch (B.).

### Course 6.

Class I.-Higginson. Class II.-None. Class III.-None.

# SCHOOL OF COMMERCIAL STUDIES.

## ACCOUNTANCY (FIRST YEAR).

Class I.—Negru; Goldsmith and Yanovitch, equal; Rabinovitch, Gault, Franklin, Emo, Buzzell, Kennedy; Leckie and Morris, equal; Friedman and Stephen, equal; Stanfield, Ogilvie, Magid, Bonavitzky, Martin; Gauthier and Graham (G.) and Matthews, equal. Class II.—Campbell, Taprell, Connor; Fels and Neel, equal; Brenchley, Mitchell (N. R.): Browne and Silver and Stevens, equal. Class III.—McCullough, Segal, Bruker, Gaboury; Brewer and Bryce, equal; Clarke (T. E.) and O'Shea, equal; Phelan, Clark (C. H.), Gamble; Allan and Berzansky, equal; Lane and Robinson and Scobell, equal; Kornberg and McCrea and Winslow, equal; Horwood; Carter and Chamberlain and Furminger, equal; Edward and Hamilton and Hodgson (J. P.) and Humphrey and Pepin and Ross and Shackell, equal.

## ACCOUNTANCY (SECOND YEAR).

Class I.—Dustan, Ellin, O'Brien. Class II.—Holland and Shea and Steine and Tyler, equal; Elderkin; Burke and MacKinnon, equal; Carruthers and Lazier and Nichol (G. H. G.) and Wilson (D. G.), equal; Caplan and Kaplan and Smith (C. B.) and Windatt, equal; Dobell and Falconer and Shecter, equal. Class III.—Caswell and Cockshutt and Snyder and Wallace, equal; Fraser and Hughes and MacMahon and Mullen and Smith (P. G.), equal; Becker and Mott and Richter, equal; Jones and Kee and Kersley, equal; Drummond.

## ACCOUNTANCY (THIRD YEAR).

Class I.—Werry, Shapira. Class II.—Dougall and Rutherford (J. B.) and Rutherford (W. K.), equal; Blackman.

### CHEMISTRY (GENERAL).

Class I.—Dustan; Holland and Kaplan and MacKinnon, equal; Caplan and Nichol (G. H. G.), equal; Dobell and Shea, equal; Smith (P. G.); Fraser and Mott, equal; Cockshutt; Caswell and Lazier, equal. Class II.—Ellin; Kee and Tyler and Windatt, equal; Wilson (D. G.), MacMahon, Jones; Falconer and Humphrey and Mullen, equal; Carruthers, Becker. Class III.—Hughes and Shecter, equal; Richter; Kersley and Smith (C. B.), equal; Small; Burke and Clarkson, equal; Drummond, Steine, Wallace, Pepin, Webster.

## COMMERCIAL LAW.

Class I.—Shea, Windatt, Ellin, O'Brien, Kaplan, MacKinnon. Class II.—Caplan and Dustan, equal; Smith (P. G.), Elderkin, Wilson (D. G.), Snyder, Falconer, Jones; Cockshutt and Nichol (G. H. G.), equal; Holland, Lazier; Humphrey and Mullen, equal. Class III.—Becker and Caswell, equal; Shecter; Mott and Steine, equal; Fraser, Tyler, Smith (C. B.), Stewart, Carruthers, Kee; Hughes and Wallace, equal; Goodkowsky; Calvert and Finley and MacMahon and Richter, equal; Kersley and Reid, equal.

## ECONOMIC GEOGRAPHY (FIRST YEAR).

Class I.—Winslow, Morris, Friedman, Gault, Yanovitch, Leckie; Mc-Cullough and Negru, equal. Class II.—Connor and Stephen, equal; Campbell and Goldsmith, equal; Browne and Buzzell, equal; Humphrey; Lane and Ogilvie; equal; Brenchley and Clark (J. A.) and Heaney and Mitchell (N. R.), equal; Clarke (T. E.), Bryce; Carter and Stanfield, equal; Brewer and Kennedy and Neel and Rabinovitch, equal; Chamberlain and Gaboury and Stevens, equal; Emo and Fels and Robinson, equal; Allan and Matthews, equal. Class III.—Clark (C. H.) and Horwood, equal; Scobell; Bonavitzky and Magid, equal; Gamble, Berzansky, Graham (G.), Taprell, Hamilton, Martin, Burland; Furminger and Gauthier, equal; Hodgson (J. P.), Kornberg; McCrea and Silver, equal; Segal.

## ECONOMIC GEOGRAPHY (SECOND AND THIRD YEARS).

Class I.—Dobell and Johnson and Kaplan, equal; Werry, Dustan; Elderkin and Holland, equal; Lazier and Rutherford (W. K.), equal; Tyler, Shea, Rutherford (J. B.), MacKinnon; Cockshutt and O'Meara, equal; Windatt; Caplan and O'Brien, equal; Clarkson and Nichol (G. H.), equal; Jones and Ladore and Snyder, equal; Fraser and Smith (C. B.), equal; Shecter and Smith (P. G.), equal; Drummond and Wilson (D. G.), equal; Carruthers and Shapira, equal. Class II.—Caswell and Hughes, equal; Mullen and Steine, equal; Dougall and Webster, equal; Kee and Stewart, equal; Burke; Calvert and Finley and Reid, equal; Lefkowitz and MacMahon, equal; Kersley. Class III.—Wallace, Falconer, Becker, Mott; Goodkowsky and Friedman, equal; Small, Richter, Blackman.

### ECONOMICS (FIRST YEAR).

Class I.—Fels, Ogilvie, Magid; Goldsmith and Robinson, equal; Friedman, Leckie, Gault, Gauthier, Winslow, McCullough; Buzzell and Kennedy, equal; Bonavitzky; Hodgson (D. M.) and Scobell and Yanovitch, equal; Campbell and Horwood, equal; Brenchley. Class II.—Clark (J. A.) and Hamilton and Humphrey and McCrea, equal; O'Shea and Taprell, equal; Allan and Chamberlain and Stephen, equal; Berzansky and Rabinovitch and Stanfield, equal; Pepin, Emo; Heaney and Matthews, equal; Brewer and Burland, equal; Mitchell (N. R.) and Morris, equal; Gaboury and Stevens, equal; Clark (C. H.). Class III.—Graham (G.) and Neel, equal; Browne and Negru, equal; Bruker, Bryce, Connor, Segal, Carter, Silver, Lane; Gamble and Shackell, equal; Franklin.

## ECONOMICS (SECOND AND THIRD YEARS).

Class I.—MacKinnon; Dustan and Lazier, equal; Holland; Smith (C. B.) and Werry, equal; Shea, Smith (P. G.), Kaplan; Elderkin and Lefkowitz, equal; Blackman; Clarkson and O'Brien, equal; Dobell and Mullen and Rutherford (J. B.) and Wilson (D. G.), equal; Drummond and Jones, equal; Falconer; Ellin and O'Meara, equal. Class II.—MacMahon, Caplan; Caswell and Rutherford (W. K.) and Shapira, equal; Fraser and Snyder, equal; Windatt; Richter and Shecter, equal; Nichol (G. H.

G.); Cockshutt and Ladore, equal; Burke and Carruthers and Johnson, equal; Calvert and Friedman, equal; Dougall. Class III.—Hughes; Mott and Reid, equal; Steine, Beattic; Finley and Kee and Stewart, equal; Becker, Tyler, Goodkowsky, Webster.

ECONOMICS (SPECIAL COURSE).

Class I.—Caplan and Kaplan, equal; Smith (P. G.); Smith (C. B.) and Windatt, equal; MacKinnon, Snyder, Lazier; Dustan and Holland and Shea and Wilson (D. G.), equal; Tyler; Dobell and Frederick, equal; Falconer and O'Brien, equal; Kee, Becker, Reid, Laffoley. Class II.—Jones, Ladore, Cockshutt, Calvert; Nichol (G. H. G.) and Shecter, equal. Class III.—Burke and Mott and Mullen and Steine and Wallace, equal; Carruthers and Caswell and Stewart, equal; Clarkson, Richter, Small; Beattie and Wilson (C. P.), equal; Hughes, Kersley; Elderkin and Finley and MacMahon, equal.

### ENGLISH (COURSE I).

Class I.—Buzzell, Kennedy, Leckie, Neel, Ogilvie. Class II.—Goldsmith and McCullough, equal; Friedman; Clarke (J. A.) and Lane, equal; Robinson; Clark (C. H.) and Taprell, equal; Brewer and Phelan, equal; Bryce and Emo, equal; Segal and Winslow, equal; Negru and Stevens, equal; Burland; Allan and Fels and Horwood, equal; Morris; Brenchley and Browne and Mitchell (N. R.), equal. Class III.—Connor and Gaboury and Martin, equal; Campbell and O'Shea and Scobell, equal; Carter and Ross, equal; Clarke (T. E.) and Stephen, equal; Hodgson (J. P.), Rabinovitch; Bruker and Matthews, equal; Chamberlain; Kornberg and Magid, equal; Hamilton, Silver, Yanovitch; Franklin and Gamble and Shackell, equal; Stanfield.

## ENGLISH (SECOND YEAR).

Class I.—Elderkin, O'Brien, Kaplan; Caplan and MacKinnon, equal. Class II.—Lazier; MacMahon and Shea, equal; Nichol (G. H. G.); Dobell and Wilson (D. G.), equal; Fraser; Ellin and Goodkowsky, equal; Holland and Jones, equal. Class III.—Stewart; Clarkson and Cockshutt and Falconer and Hughes, equal; Dustan and Snyder, equal; Kee; Carruthers and Ladore, equal; Tyler; Steine and Webster, equal; Shecter; Smith (C. B.), Caswell; Becker and Reid and Smith (P. G.) and Windatt, equal; Finley and Mullen, equal; Kersley and Wallace, equal.

### ENGLISH (THIRD YEAR).

Class I.—O'Meara. Class II.—Werry, Rutherford (W. K.), Rutherford (J. B.). Class III.—Johnson; Friedman and Shapira, equal; Lefkowitz, Dougall, Blackman.

# INDUSTRIAL ORGANIZATION (SECOND AND THIRD YEARS).

Class I.—Dustan, Holland, Lazier, Caplan; Rutherford (W. K.) and Shea, equal; Werry; Kaplan and O'Brien and Snyder, equal; Clarkson; Falconer and Shapira, equal; Dougall and Smith (P. G.), equal; Johnson; Cockshutt and MacKinnon, equal; Nichol (G. H. G.) and Wilson (D. G.), equal. Class II.—Tyler, Rutherford (J. B.); O'Meara and Wallace, equal; Elderkin;

Mullen and Smith (C. B.), equal; Jones; Steine and Stewart, equal; Reid and Shecter, equal; Windatt; Becker and Fraser and MacMahon, equal. Class III.—Kee, Hughes, Blackman, Drummond; Dobell and Ladore, equal; Mott and Riehter, equal; Friedman and Lefkowitz, equal; Caswell and Kersley, equal; Carruthers and Webster, equal; Small, Goodkowsky.

### INTERNATIONAL LAW.

Class 1.—None. Class 11.—O'Meara, Johnson, Lefkowitz. Class 111. Friedman.

### LAW OF CORPORATIONS.

Class I.—Johnson. Class II.—O'Meara. Class III.—Lefkowitz, Friedman.

#### MARINE INSURANCE.

Class 1.—O'Meara and Werry, equal; Rutherford (W. K.), Johnson, Shapira; Dougall and Lefkowitz, equal; Rutherford (J. B.), Blackman. Class II.—Friedman. Class III.—None.

#### MATHEMATICS.

## Algebra (First Year).

Class I.—Goldsmith, Taprell, Morris, Gauthier; Allan and Bonavitzky, equal; Rabinovitch. Class II.—Bruker, Yanovitch; Fels and Leckie, equal; Kennedy; Brenchley and Buzzell and Negru, equal; Bryce and Emo and Ogilvie and Segal, equal; Stanfield and Stevens, equal. Class III.—Martin, Winslow; Browne and Friedman and O'Shea, equal; Connor and Lane and Magid, equal; Stephen, Scobell, Graham (G.), Gaboury; Matthews and Neel, equal; Pepin; Campbell and Gamble, equal; Brewer; Burland and Edward and Franklin, equal; McCullough and Mitchell (N. R.), equal.

# Geometry (First Year).

Class I.—Bonavitzky and Bryce and Campbell and Clark (C. H.) and Kennedy and Leckie and Martin and Ogilvic, equal; Allan and Brenchley and Emo and Fels and Goldsmith and Morris and Negru and Taprell, equal; Horwood and Kornberg and Rabinovitch and Winslow and Yanovitch, equal; Lane and Matthews and Stanfield, equal; Burland and Neel, equal; Buzzell and Carter and Clarke (T. E.) and Heaney and Mitchell (N. R.) and Segal and Stevens, equal. Class II.—Stephen; Connor and Friedman and Furminger and Gamble and Hamilton and Scobell and Shackell, equal; Bruker and Graham (G.) and Silver, equal; Browne and Magid, equal. Class III.—Chamberlain and Edward, equal; Phelan, Brewer, Franklin.

# Trigonometry (First Year).

Class I.—Goldsmith, Yanovitch, Morris, Rabinovitch, Friedman. Class II.—Humphrey, Taprell; Bonavitzky and Fels, equal; Leckie, Negru. Class III.—Emo and Kennedy, equal; Browne and Stanfield, equal; Mitchell (N. R.), Campbell; Ogilvie and Stevens, equal; Bruker; Buzzell and Martin and Scobell, equal; Allan and Brenchley and Clarke (T. E.) and Stephen, equal; O'Shea, Franklin; Brewer and Bryce and Carter and Chamber-

lain and Connor and Edward and Gaboury and Magid and Matthews and Neel and Winslow, equal.

# MATHEMATICS (SECOND YEAR).

Class I.—Kaplan; Dustan and MacKinnon, equal; Caplan, Holland; Lazier and Snyder, equal; O'Brien; Elderkin and Mullen, equal; Richter, Shea, Smith (P. G.), Nichol (G. H. G.), Becker. Class II.—Wilson (D. G.); Ellin and Falconer, equal; Cockshutt and Tyler, equal; MacMahon and Shecter, equal; Hughes and Wilson (C. P.), equal; Jones. Class III.—Windatt; Caswell and Dobell and Stewart, equal; Carruthers, Smith (C. B.), Kersley; Burke and Kee, equal; Steine; Clarkson and Reid, equal; Mott.

### FRENCH (SECOND YEAR).

Class I.—Shea. Canlan. Class II.—Kaplan, Richter, Dobell, Holland, Burke, MacKinnon. Class III.—Clarkson, Goodkowsky: Ellin and Iones and Stewart, equal; Hughes and Mullen and Shecter and Tyler, equal; Elderkin and O'Brien, equal; Falconer: Nichol (G. H. G.) and Snyder, equal; Carruthers; Dustan and Smith (P. G.) and Webster, equal; Caswell and Kee, equal; MacMahon and Steine and Wallace, equal; Fraser and Ladore, equal: Cockshutt and Lazier, equal; Windatt; Becker and Finley and Wilson (D. G.), equal.

# FRENCH (THIRD YEAR).

Class I.—Werry. Class II.—Shapira, O'Meara, Blackman. Class III.
Rutherford (J. B.) and Rutherford (W. K.), equal; Lefkowitz,
Johnson, Dougall, Friedman.

# SPANISH (ELEMENTARY).

Class I.—None. Class II.—Dobell, McGreer, Kee. Class III.—Caldwell, Brenchley.

SPANISH (ADVANCED).

SPANISH (ADVANCED).

Class I.-None. Class II.-None. Class III.-Ellin.

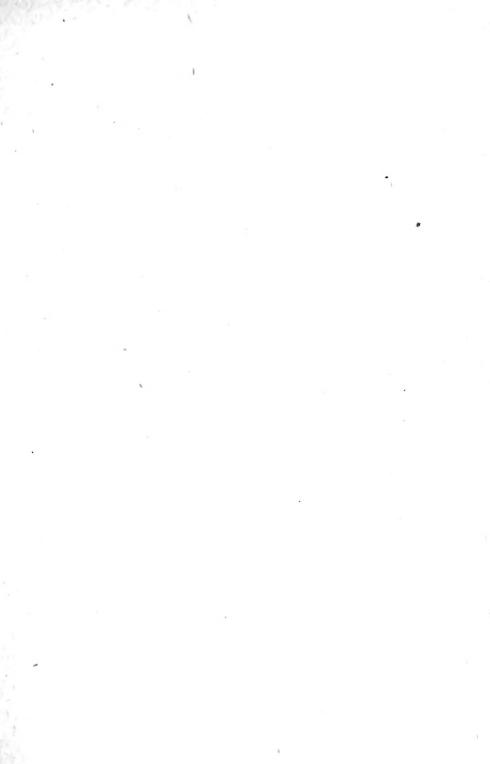
### SHIPPING AND CARRIERS.

Class I.—O'Meara. Class II.—Friedman and Lefkowitz, equal. Class III.—Johnson.

### PHYSICS.

Class I.—Goldsmith, Ogilvie, Fels, Kennedy. Class II.—Segal; Friedman and Negru, equal; Brenchley and Rabinovitch, equal; Buzzell, Leckie, Morris, Scobell; Campbell and Yanovitch, equal; Stephen and Stevens, equal; Allan and Gauthier and McCullough and Stanfield, equal: Winslow; Matthews and O'Shea and Taprell, equal. Class III.—Connor, Horwood, Emo; Gaboury and Gamble, equal: Browne and McCrea and Magid, equal: Brewer, Lane, Clarke (T. E.), Neel, Berzansky; Chamberlain and Clark (C. H.), equal; Furminger; Bryce and Hamilton and Mitchell (N. R.), equal; Bruker and Graham (G.), equal.







# McGill University

SESSIONAL EXAMINATIONS, 1920-21.

### REPORT OF THE

# Faculty of Applied Science.

Honours in the Graduating Class, Medals, Certificates and Prizes, as follows:--

(Names in alphabetical order.)

Anderson, Alexander Gordon—Honours in Electrical Engineering.

Bain, George W.—LeRoy Fellowship in Geology; British Association

Medal; Honours in Ore Deposits and Economic Geology.

Brow, James Barratt-Honours in Ore Deposits and Economic Geology.

Canning, Dow Vernon-Honours in Physics.

Congleton, John Brooke (Lord)—British Association Medal; Honours in Machine Design, Mechanical Laboratory and Experimental Engineering, Power Plant Design, Thermodynamics, and Hydraulics: Croshy Steam Gauge and Valve Company's Prize for Summer Essay.

Croft, Carman Milward—British Association Medal; Honours in Physical Chemistry, Industrial Organic and Inorganic Chemistry.

Cromwell, Harry Roy-Honours in Ore Deposits and Economic Geology.

Cunningham, Frederick James—British Association Medal; Honours in Electrical Engineering, Geodetic Fieldwork, Municipal Engineering, Strength of Materials, Theory of Structures, and Hydraulics.

Dewar, Charles Leonard—Douglas Fellowship in Mining; Honours in Ore Dressing and Laboratory; Undergraduates' Society's First Prize for Summer Essay.

Fortin, Gaston Lalonde-Honours in Municipal Engineering.

Fowler, Wallace W.—Honours in General Metallurgy; Metallurgical Laboratory Thesis and Design; The Milton Hersey Prize for Summer Essay.

Gliddon, 77. G. Claude—British Association Medal; Honours in Physics, Electric Light and Power Distribution, and Electric Traction.

Harrison, Donald Ranald—British Association Medal; Honours in General Metallurgy, Metallurgy, Ore Deposits, and Metallurgical Laboratory Thesis and Design.

Jackson, Carl Henry-Honours in Electrical Design.

Jelly, Calvin Sherwood—Honours in Physical Chemistry, and Industrial Organic and Inorganic Chemistry.

Johnston, Harry Wyatt—British Association Medal; Honours in Physical Chemistry, Advanced Inorganic Chemistry, Industrial Organic and Inorganic Chemistry.

Lyman, Walter Kenneth Gordon—Louis Robertson Prize for Architectural Design.

Macphail, Jeffrey Burland—Honours in Electrical Engineering, and Municipal Engineering.

Mawdsley, James Buckland-Honours in Mining Engineering.

Mitchell, Frank Leslie—Honours in Industrial Organic and Inorganic Chemistry.

Palmer, Charles Leonard—Honours in Ore Dressing and Laboratory, and Ore Deposits and Economic Geology.

Robertson, Andrew Murray—The Drinkwater Prize for Summer Essay, and Under graduates' Society's Third Prize for Summer Essay.

Rochester, Lloyd B.-McCall Summer Essay Prize.

Saunders, James Erling—Dawson Fellowship in Mining; Honours in Ore Deposits and Economic Geology.

Watson, Conrad Ethelbert-Honours in Municipal Engineering.

Winslow, Kenelm M.—Honours in Machine Design and Thermodynamics.

# PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

Lyman, Walter Kenneth Gordon, Montreal, P.Q.

# PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

IN CHEMICAL ENGINEERING.

(In order of merit.)

Johnston, Harry Wyatt, Montreal, P.Q. Croft, Carman Milward, Digby, N.S.

Jelly, Calvin Sherwood, Carleton Place, Out. Green, Frederick Gordon, St. John, N.B. Kay, Stuart Evans, Montreal, P.Q. Calkin, Darrell Lorraine, Kentville, N.S. Lordly, Guy Sterling, St. John, N.B. Mitchell, Frank Leslie, Toronto, Ont. Lantz, Floyd Crawford, Montreal, P.Q. Giles, George Reid, Lachute, P.Q. Thomson, Walter Wilfred, Montreal, P.Q. Copping, Allan Blythe, Montreal, P.Q. Hyndman, Edward Douglas, Sherbrooke, P.Q. Cuddy, John Michael, Montreal, P.O. McIntyre, Gordon, Montreal, P.Q. Yates, Christopher Montague, Montreal, P.Q. Forbes, Karl, Montreal, P.Q. Cambron, Adrien, Sherbrooke, P.Q. Purcell, John Metcalfe, Cobden, Ont. Smith, Roy Hamilton, Pictou, N.S. Challenger, James Othneil, St. Kitts, B.W.I. Goodwin, Cassels Dunbar, Baie Verte, N.B. Cockfield, Alfred Ernest, Montreal, P.Q. Stroud, William Dicker, Montreal, P.O.

### Unranked.

Parsons, Frederick Sidney, East Angus, P.Q. Smith, Donald Taylor, Montreal, P.Q. Warriner, Norman Downing, Montreal, P.Q.

### IN CHEMISTRY.

(In order of merit.)

Timmerman, Everett Drinkwater, Montreal, P.Q. Cohen, Joseph, Ottawa, Ont.

### Unranked.

Fox, Hugh Dean, Montreal, P.Q.

### IN CIVIL ENGINEERING.

(In order of merit.)
Cunningham, Frederick James, Ottawa, Ont.
Macphail, Jeffrey Burland, Montreal, P.Q.
Fortin, Gaston Lalonde, Montreal, P.Q.
Brault, Paul George Adrien, Montreal, P.Q.
Gardner, John George, Montreal, P.Q.

Hannan, James, Irvington, N.Y., U.S.A. Watson, Conrad Ethelbert, Jamaica, B.W.I. O'Sullivan, Louis, Montreal, P.Q. Muir, Wilson James, Montreal, P.Q. Perrault, Rene Brunay, Montreal, P.Q. Loy, John Austin, Ottawa, Ont. Gauthier, Paul Gilles, Montreal, P.Q. Robertson, Andrew Murray, Montreal, P.Q.

# Unranked.

(In alphabetical order.)

Drewry, John Haworth, Victoria, B.C. Elder, John Campbell, Montreal, P.Q. Farmer, Rupert Whitley, Barbados, B.W.I. Hart, Lawrence Folgar Carleton, Ottawa, Ont.

### IN ELECTRICAL ENGINEERING.

(In order of merit.)

Gliddon, W. G. Claude, Ottawa, Ont.
Anderson, Alexander Gordon, Buckingham, P.Q.
Canning, Dow Vernon, Montreal, P.Q.
Jackson, Carl Henry, Montreal, P.Q.
Louttit, William Charles, Montreal, P.Q.
Vineberg, Samuel Sullivan, Winnipeg, Man.
Thompson, Gordon Maurice, Vancouver, B.C.
Fellows, Howard, Stellarton, N.S.
Bishop, Trenholme Allen Gill, Montreal, P.Q.
Sloves, Moses, Montreal, P.Q.
Eaton, Milton, Treherne, Man.
Whelen, Morland Powers, Ottawa, Ont.
Acton, Harold Joseph, Montreal, P.Q.
MacDonald, Dan., Springfield, P.Q.
Hill, Stanley Clayton, Richmond, P.Q.

### Unranked.

(In alphabetical order.)

Parnell, Eric, Medford, Mass., U.S.A. Patton, Roy Hamilton, St. George, Ont. Phelan, Thomas Enslow, Montreal, P.Q. (Aegrotat.) Salamis, Basil, Leka Island, Greece. Stewart, Malcolm Gordon, Montreal, P.Q. Vaughan, Harold Wilfred, Wolfville, N.S. Wiggs, Gordon Lorne, Quebec, P.Q.

### IN MECHANICAL ENGINEERING.

(In order of merit.)

Congleton, John Brooke (Lord), Montreal, P.Q. O'Halloran, James, Ottawa, Ont.
Macfarlane, Donald Henry, Sherbrooke, P.Q.
Langstroth, Cecil Craven, Hampton, N.B.
Winslow, Kenelm M., Winnipeg, Man.
Maxwell, Edward Blythe, Montreal, P.Q.
Mooney, Renel Burdett, Stellarton, N.S.
Hall, John G., Cornwall, Ont.
Jenckes, Kennan Brooks, Sherbrooke, P.Q.

# Unranked.

Durant, Norman Morton, Parrsboro, N.S. McCurdy, Lyall Radcliffe, New Glasgow, N.S. (Aegrotat) Wilson, James Kinnear, Sherbrooke, P.Q.

### IN METALLURGICAL ENGINEERING.

(In order of merit.)

Harrison, Donald Ranald, Tamworth, Ont. Fowler, Wallace W., Montreal, P.Q. Clark, Richard Gladstone, Bear River, N.S. Nutter, Jack Caswell, Lennoxville, P.Q. Jordan, Herbert Scott, Montreal, P.Q.

### IN MINING ENGINEERING.

(in order of merit.)

Bain, George W., Lachute, P.Q.
Saunders, James Erling, Westville, N.S.
Palmer, Charles Leonard, London, England.
Gill, James Edward, Vancouver, B.C.
Brow, James Barratt, Charlottetown, P.E.I.
Mawdsley, James Buckland, Clemens, Alta.
Davis, Samuel, Montreal, P.Q.
Dewar, Charles Leonard, Ottawa, Ont.
Weldon, Leslie Smiley, Montreal, P.Q.
Cromwell, Harry Roy, Montreal, P.Q.
Rochester, Lloyd B., Ottawa, Ont.
Wells, Maurice Ralph, Montreal, P.Q.

## Unrank, d.

# (In alphabetical order.)

Livingstone, Kenneth Mackay, Washington, U.S.A. Scriver, Frederick William, Montreal, P.Q. Tansley, Wilfred, Wolfville, N.S.

## SESSIONAL PASS LIST.

### FOURTH YEAR.

### IN ARCHITECTURE.

\* Van Etten, Frederick Bouton, Kingston, N.Y., U.S.A.

## THIRD YEAR.

### PRIZES.

# (In alphabetical order.)

Banfill, Harold Leroy-Prize for Summer Essay.

Bissell, Harold Rudolph—One-half Second J. M. McCarthy Fieldwork Prize.

McTaggart, George Duncan — British Association Exhibition for Strength of Materials and Mechanics

Mott, Harold Edgar—British Association Prize for Strength of Materials and Mechanics.

Reiffenstein, John Christopher-One-half Second J. M. McCarthy Fieldwork Prize.

Wain, Eric James-First J. M. McCarthy Fieldwork Prize,

### SESSIONAL PASS LIST

### THIRD YEAR.

### IN ARCHITECTURE.

(In order of merit.)

- FPerry, Alfred Leslie, Montreal, P.Q.
- \* Morris, Röbert Schofield, Hamilton, Ont.
- \* Luke, Morley C., Montreal, P.Q. Watt, Leslie Alexander, St. Anne de Bellevue, P.Q.

<sup>\*</sup> Conditional upon passing supplemental examinations.

### IN CHEMISTRY.

(In order of merit.)

Binmore, George Bedell, Montreal, P.Q. Taylor, John Ellis, St. John West, N.B.

### IN CHEMICAL ENGINEERING.

(In order of merit.)

Tatley, Lambert David, Montreal, P.Q. Harris, Clifford Norton, Montreal, P.Q. Grant, Ralph Glencoe, Montreal, P.Q. Brooks, Charles Lennox, Montreal, P.Q. Carson, Cecil Edward, Montreal, P.Q.

- \* Ahern, Arthur Weston, Quebec, P.Q.
- \*Gooch, Harold Cowasjee, Dundee, P.Q.
- \* Farquharson, John Spencer, Constant Spring, P.Q.
- \*Ross, James Hargrave Drummond, Montreal, P.Q.
- \*MacNaughton, Moray Fraser, Montreal, P.Q.
- \* Loebel, John Mayer, Montreal, P.Q.
- \* Clarke, Ira Wallace, Bear River, N.S.
- \* Fraser, Andrew Stockwell, Ottawa, Ont.
- \* Woodward, Eric Raymond, Montreal, P.Q.
- \* Shotwell, John Stuart Glashan, Ottawa, Ont. \ equal
- \* Wright, Weir Stanley, Montreal, P.Q.
- \* Boronow, Paul, Montreal, P.Q.

# Unranked.

Irving, George Ewart Logan, Moncton, N.B.

### IN CIVIL ENGINEERING.

## (In order of merit.)

McTaggart, George Duncan, Clinton, Ont. Lorin, L. Gustave, Montreal, P.Q. Cartwright, George Herbert, Montreal, P.Q. \* Woolward, Charles Desmond, Dominica, B.W.I. Bates, Ralph Orville, Belle Isle, N.B. Messenger, William Aubrey, Montreal, P.Q.

Wain, Eric James, St. Lambert, P.Q.

Spratt, Maynard James Campbell, Ottawa, Ont. Eager, Norman Herbert Aldwyn, Montreal, P.Q.

\* Wilder, Hartland Bates, Montreal, P.Q.

<sup>\*</sup> Conditional upon passing supplemental examinations.

- \* Cousineau, Charles A., Montreal, P.Q.
- \* Murphy, Alexander Gordon Silcox, Montreal, P.Q.
- \* Martin, Kenneth Beriah, Spokane, Washington, U.S.A.
- \* Reid, Eric Arnold, Montreal, P.Q.
- \* MacKeen, David Whitney, Halifax, N.S.
- \* Bradfield, John Ross, Morrisburg, Ont.
- \* Fisk, George Harold, Montreal, P.Q.
- \* Rutherford, Andrew Scott, Montreal, P.Q.
- \* Thompson, Cecil E., Ottawa, Ont.

### Unranked.

Ferguson, John Alexander, Nelson, B.C.

### IN ELECTRICAL ENGINEERING.

# (In order of merit.)

Mott, Harold Edgar, Winnipeg, Man. Bush, Harold Frederick, Ottawa, Ont. Bonneville, Sydney, Ottawa, Ont. Desbarats, George Henry, Ottawa, Ont. Taber, Harold Edward, Carleton Place, Ont. Clarke, Edward Lawrence, Montreal, P.Q. Mitchell, Robert John, Vancouver, B.C.

- \* Paddon, John Edmund, Montreal, P.Q.
- \* Russell, Jeffrey Cameron, Montreal, P.Q. Brown, Edmund Vere, Montreal, P.Q.
- \* Kerr, George Elliott, Ferme, B.C.
- \* Banfill, Harold Leroy, Richmond, P.Q.
- \* Gordon, George Blair, Montreal, P.Q.
- \* Handy, Lee, Vancouver, B.C.
- Wonham, Walter Richard, Westmount, P.Q.
  - \* Armstrong, Lawrence Henry, Montreal, P.Q.

# IN MECHANICAL ENGINEERING.

### (In order of mern.)

Biggar, Pereival Ellist, Ottawa, Ont. Clark, George Silas, Lachute, P.Q.

\* Bastable, Ross Wallet, Lachine, P.Q. Morrisette, Gordon Joseph, Sherbrooke, P.Q. Crawford, Robert Eric Anderson, Montreal, P.Q. Ford, Robert, Ottawa, Ont.

<sup>\*</sup> Conditional upon passing supplemental examinations.

- \* Notman, James Geoffrey, Westmount, P.Q. Jandrew, Cyrus Bertram, Ottawa, Ont.
- \* Holmes, Everett Eric, Westmount, P.Q.
- \* MacNider, Clarence Henry, Westmount, P.Q.
- \* McLennan, Gordon Roderick, Ottawa, Ont.
- \* Roberton, John Gordon, Montreal, P.Q.
- \* Holt, Ernest William, Montreal, P.Q.
- \* Evans, William James, Montreal, P.Q.
- \* Foss, Roy Holmes, Sherbrooke, P.Q.
- \* MacGregor, Roderick Archibald, New Glasgow, N.S.

### Unranked.

Wilkins, Harold Oswald Day, Norwood, Ont.

IN METALLURGICAL ENGINEERING,

# (In order of merit.)

- \* Humes, Harold Louis, Montreal, P.Q.
- \* Duff, Edgar Cowperthwaite, Carbonear, Nfld.
- \* Kyle, Donald Gordon, Montreal, P.Q.
- \* Pevzner, Isadore, Montreal, P.Q.
- \* McClelland, William Raymond, Halitax, N.S.
- \* Hamilton, Philip Dawson Prior, Midvale, Utah, U.S.A.
- \* Godard, John Stoddart, Ottawa, Ont.

### IN MINING ENGINEERING.

# (In order of merit)

Weldon, T. Herbert, Montreal, P.Q. Carlyle, Arthur William, Ottawa, Ont. Bissell, Harold Rodolph, Toronto, Ont. Hastings, Walter Hindson, Regina, Sask. Porritt, Richard Valentine, Cowichau Station, B.C.

- \* Wilson, James M., Lachine, P.Q.
- \* Nesbitt, Martin Bicirra, Chihuahua, Mexico.
- \* Wightman, John, Digby, N.S.

### SECOND YEAR.

## PRIZES.

(In alphabetical order.)

Cooper, Hugh Christopher Dunstan—Anglin-Norcross Prize for Construction.

<sup>\*</sup> Conditional upon passing supplemental examinations.

Kennedy, Neil-First Prize for Mathematics and Mechanics.

Macleod, Alexander Norman—Anglin-Norcross Prize for Historical Drawing.

Moore, Reginald Arthur—Second Prize for Mathematics and Mechanics.

Webster, Robert Chilion Peter-Third Prize for Mathematics and Mechanics.

### SESSIONAL PASS LIST.

### IN ARCHITECTURE,

(In order of merit.)

Cooper. Hugh Christopher Dunstan, Truro, England.

- \* Wilson, Percy Loy, Sault Ste. Marie, Ont.
- \* Amos, Pierre Charles, Montreal, P.Q.
- \* MacDuff, Albert, Montreal, P.Q.

### OTHER COURSES.

(In order of merit.)

Moore, Reginald Arthur, Edwards, B.C. Culpeper, Bernard Armel, Barbados, B.W.I. Buller, Francis Hamilton, Montreal, P.Q.

\*Kennedy, Neil, Owen Sound, Ont.
Layne, John Graham, Barbados, B.W.I.
Harbert, Edward Thomas, Montreal, P.Q.
Wood, Robert W., Montreal, P.Q.
Yorston, Frederic Harrison, Montreal, P.Q.
Cregeen, Kenneth Thomas, Montreal, P.Q.
Bloomfield, Jacob, Montreal, P.Q.
Steacie, Edgar William Richard, Montreal, P.Q.
Sherwood, Thomas K., Montreal, P.Q.
Read, Douglas Ellery, Sherbrooke, P.Q.
Stephen, Gordon Robert, Montreal, P.Q.
Toole, Francis James, London, England,
Laidley, Wendell Howard, Montreal, P.Q.

\*Radley, Percy Edward, Ottawa, Ont. Oliver, James Harold, Rockburn, P.Q. Munro, David John Best, Montreal, P.Q.

\* Webster, Robert Chilion Peter, Ottawa, Ont. Smith, Robert Macfie, Moose Jaw, Sask. Rorke, Charles Burnell, Montreal, P.Q. equal.

<sup>\*</sup> Conditional upon passing supplemental examinations.

Matheson, Arthur Marshall, Ottawa, Ont. Ambridge, Douglas White, Mexico City, Mexico. Connell, Gerald P., Ottawa, Ont.

- \*McNaughton, Ronald Russel, Victoria, B.C. Craik, Oliver Stanley, Melbourne, P.Q. Johnson, William James, Lachine, P.Q. McKindsey, Gordon, Lennoxville, P.Q.
- \*Turnbull, Andrew Rutherford, Niagara Falls, N.Y. Abbott-Smith, Harry B., Montreal, P.Q. Gordon, Harold Cowan Morton, Glace Bay, N.S. Binns, George Frederick, Montreal, P.Q. Cequal.
- \*Ross, Malcolm Vaughan, Quebec, P.Q.
- \* Eadie, Thomas Wardrope, Ottawa, Ont.

  Blackall, John Fenwick Walker, St. John's, Newfoundland.
  Chisholm, Joseph Donald, Antigonish, N.S.
  Finlayson, Harold Musgrove, Montreal, P.Q.
  Powell, Allan Trew., Ottawa, Ont.
  McLagan, Thomas Rodgie, Montreal, P.Q.
  Legg, Roland Edward, Victoria, B.C.
  Patton, Hugh Bradford, Montreal, P.Q.
  Allan, John Maynes, Halifax, N.S.
- \*Timmis, Harold Gordon, New York, N.Y., U.S.A.
- \*Smith. Archie Ewart, Brandon, Man. Terrance, Emmett Howard, Ottawa, Ont.
- \* Woollcombe, Edward Mickle, Rockliffe, Ottawa, Ont. Grant, Grainger Stewart, Halifax, N.S.
- \* Davies, Clarence Bernard, Ottawa, Ont. Gegg, Richard Conrad, Hongkong, China.
- \* Rochester, Bertram Cole, Ottawa, Ont.
- \* Horsey, Richard Mountstephen, Montreal, P.Q. Desbarats, Harrison Jean, Montreal, P.Q.
- \* Tallon, Joseph Andrew, Quebec, P.Q. Downs, Henry William, Lennoxville, P.O.
- \* Mills, Charles Perkins, Ottawa, Ont. Lea, Harry Windsor, Victoria, P.E.I.
- \* Griffith, Thomas Raymond, Montreal, P.Q.
- \* Faith, Willard Vanamber, Winchester, Ont.
  Peters, Arthur Wright, Montreal, P.Q.
  Simpson, Richard Loudon, Montreal, P.Q.
  Whittemore, Carl Raymond, Trail, B.C.
  LeBaron, Karl Shurtleff, Sherbrooke, P.Q.
  Bishop, Eric Gordon, Bonavista Bay, Newfoundland.

<sup>\*</sup> Conditional upon passing supplemental examinations.

\* Katz, Morris, Montreal, P.Q.

Budden, Arthur Napier, Montreal, P.Q.

- Graham, George Patterson, New Glasgow, N.S.
- Armstrong, Arnold Victor, Montreal, P.Q.

Kezar, George Lennox, Ottawa, Ont.

- Dalrymple, Edward Ross, Montreal, P.Q.
- Cuttle, William Gordon, Montreal, P.Q.
- \* Desloover, Raymond, Montreal, P.Q.
- Foss, Donald Burrowes, Sherbrooke, P.Q.
- \* lones, Frederic Howden, Victoria, B.C.
- MacLaren, Albert Roy, Buckingham, P.Q. Reid, Howard Edward, Granville Ferry, Anna. Co., N.S. equal.
- \* Champion, Cecil Hugh, Chateauguay Basin, P.Q.
- \* Brough, Frank Sheldon, Montreal, P.Q.
- Denis, Bertrand Tyrrell, Quebec, P.Q. 1 equal.
- \* Malone, Wm. Harcourt, Montreal, P.Q.
- Hague, Edward Cousins, Montreal, P.Q. McCaw, John Blacklock, Sherbrooke, P.Q.
- Moran, Taylor Matthew, Ottawa, Ont.
- Velasco, Edward Marmanillo, Cwyco, Peru, So. America.
- Brisbane, William Gordon, Montreal, P.Q.
- \* Bradshaw, Gordon Rothwell, Nelson, B.C.
- Cram, George Edwin, Ottawa, Ont. Gaudet, Gaston, Valois, P.Q.
- \* Gilbert, Edgar Valentine, Montreal, P.Q.
- \* Taschereau, Rogers Harwood, Ottawa, Ont.
- \* Scott, James McDonald, Valleyfield, P.Q.
- Stramell, John Hunter, Buckingham, P.Q. Jackson, Lawrence Wright, Ottawa, Ont )
- \* Pelletier, Rene Arthur, Montreal, P.Q. Elkington, Gerald Erlam, Duncan, V.I., B.C.
- Smith, Adam Wyndham Simpson, London, Ont.
- \* Streadwick, Ralph Donell St. George, Jamaica, B.W.I. { equal
- \* Gamble, Robert Bruce, Ottawa, Ont.
- \* Dormer, William John Smylie, Lennoxville, P.O.
- \* Bieler, Jacques Louis, Montreal, P.Q.
- \* Emley, Frederick Lovell, Montreal, P.Q.
- Dickinson, Albert Godfrey, Vancouver, B.C.
- \* Buffam, Ba-il Scott Whyte, Perth, Out.
- \* Fagan, James Wilfrid, Montreal, P.Q.
- \* Powell, Fraser Edwin, Ottawa, Ont.
- \* Patterson, Thomas Britton, Lumsden, Sask

<sup>\*</sup> Conditional upon passing supplemental examinations.

\*Livingstone, Arnold Clarence, Montreal, P.Q.

\* Cooper, Paul Emerson, Portland, Me., U.S.A.

### Unranked.

(In alphabetical order.)

Anderson, Dan, Charlottetown, P.E.I.
Benett, Charles Morgan, Brantford, Ont.
Brown, George Basil, Montreal, P.Q.
Chorney, Melvin Mendel, Montreal, P.Q.
Drummond, Ross Newton, Montreal, P.Q.
Gibbs, John Hodgson, Buckingham, P.Q.
Glen, Alexander Fulton, Ste. Agathe des Monts, P.Q.
Jue, Peter Bay, Montreal, P.Q.
Kennedy, Charles Laurence, Parkdale, Man.
McDougall, Donald Hamilton, Montreal, P.Q.
Patterson, Kenneth Breck, Montfeal, P.Q.
Ramsey, Kenneth McPherson, Quebec, P.Q.
Reed, Gordon, Montreal, P.Q.
Simons, John Joseph, Michel, B.C.
Tucker, Bryant Burgess, Chumleigh, N. Devon, England.

### FIRST YEAR.

## PRIZES

(In aiphabetical order.)

Atkinson, Alfred Lyford Courtenay—Scott Exhibition for Mathematics, Descriptive Geometry and Physics.

Howes, Fred Stanley—Second Prize for Mathematics, Descriptive Geometry and Physics.

Shaw, Gerald Edison—First Prize for Mathematics, Descriptive Geometry and Physics.

# SESSIONAL PASS LIST.

IN ARCHITECTURE.

(In order of merit.)

Consiglio, Franco, Montreal, P.Q. \* Adams, Frederick Johnstone, Ottawa, Ont.

<sup>\*</sup> Conditional upon passing supplemental examinations.

### OTHER COURSES.

# (In order of merit.)

Atkinson, Alfred Lyford Courtenay, Vermillion, Alta. Howes, Fred. Stanley, Windsor, Ont. Shaw, Gerald Edison, Windsor, Ont. Lanctot, Raymond, Montreal, P.Q. Shlakman, Victor, Montreal, P.Q. McCall, Alan Drummond, Montreal, PQ. Delcellier, Henry Aime, Montreal, P.Q. \* Mercier, Alexander, Montreal, P.Q. \* Snyder. Herbert Graff, Waterloo, Ont. James, Arthur Lorne, Montreal, P.Q. Phipps, Charles Ferdinand, Victoria, B.C. Benjamin, Abraham, Montreal, P.Q. Kent, Kenneth Maclyar, Montreal, P.Q. Dick, George McKinstry, Sherbrooke, Que. Darling, Arthur Balfour, Montreal, P.Q. Becking, John Albert, Sault Ste. Marie, Ont. Manson, Francis St. Clair, Montreal, P.Q. Stewart, Donald Laughlin, Dunvegan, Out. Barnes, William Howard, Montreal, P.Q. Buzzell, Henry Walter, Abbotsford, Que. Ferguson, William Patterson, Ottawa, Ont. Ogilvy, Robert Forrest, Hamilton, Ont. \* Warren, Frank Bishop, Toronto, Ont. Finlayson, Archie Wallace, Montreal, P.Q. \* Roche-ter, William Lawrence, Ottawa, Ont. Goodall, Ernest Lorne, Ottawa, Ont. Matheson, George Lawrence, Ottawa, Ont. Kirschberg, Arthur A., Montreal, P.Q. Cochran, Thomas Patrick, Torquay, England, Freedman, Ernest, Montreal, P.Q. Higgerty, Henry Bradley, Ottawa, Ont. Holland, Edwin, Learnington Spa, England, Paterson, Alexander Pierce, St. John, N.B. \* Pringle, John Buchanan, Montreal, P.Q. Malone, Michael Patrick, Montreal, P.Q. Finlayson, Stuart Milner, Montreal, P.Q. Haves, Roland Earle, Ottawa, Ont. Braithwaite, Ethan Edward, Sherbrooke, P.O. Fairbairn, John Macfarlane, Montreal, P.Q.

<sup>\*</sup> Conditional upon passing supplemental examinations.

\* Dion, J. Edgar, Ottawa, Ont. Trenholme, George Henry, Montreal, P.Q.

\* Miller, Arthur Pirie, Montreal, P.Q.

\* Archer, Aubrey Clifford, Hastings, Barbados, B.W.I.
Lane, Wilfred Le Mesurier, Calgary, Alta.
Wilson, Harley, Montreal, P.Q.

\* Gravel. Arthur Lafayette, Montreal, P.Q.

\* Farmer, Eric Westover, Farnham, P.Q.

\* Wilson, Gilbert, Kendal, England.

\* Weisburgh, Casper, Montreal, P.Q.

\* Muir, Allan Kenneth, Burford, Ont. \*Rumpel, George Hilborn, Kitchener, Ont. Campbell, Frank Robinson, New Denver, B.C.

\* Mitchell, Wallace Murray, Montreal, P.Q.

\*Ashby, Reginald B., Montreal, P.Q. \*Farrell, Alfred James, Montreal, P.Q. equal.

\* Bray, Alton Charles, Montreal, P.Q.

\* Rudenko, Samuel David, Montreal, P.Q.

\* Moore, Alexander Whiteside, Victoria, B.C. Woolsey, George Roy, Thetford Mines West, P.Q. equal.

\* Davidson, William McCartney, Calgary, Alta.

\* Douglas, Percy Livingston, Montreal, P.Q.

\* Warren, William Adelbert, Lachine, P.Q.

\* Heyman, Max, Montreal, P.Q.

\* Goldstein, Gilbert Roland, Montreal, P.Q.

\* Burroughs, Reginald William Nelson, Montreal, P.Q.

\* Taylor, Lorne Elson, Longueuil, P.Q.

\* McNab, Archibald Hubert, Waldo, B.C. \* Schlee, Ronald, Hankow, China.

\*Logan, Robert Samuel, Montreal, P.Q.

\* Gray, Thomas Albert, Montreal, P.Q.

\* Findlay, William Fraser, Carleton Place, Ont.

\* MacGilles, Lester, Lancaster, Ont.

\* Bailey, Loring Whittall, Quebec, P.Q.

\* Anderson, Robert Beresford, Montreal, P.Q.

\*Ree, Alex., New Westminster, B.C.

\* Buchanan, William Demey Humphrey, Gould, P.Q.

### Unranked.

(In alphabetical order.)

Antliff, J. Cooper, Montreal, P.Q. Baillie, Donald Arthur, Montreal, P.Q.

<sup>\*</sup> Conditional upon passing supplemental examinations.

Bishop, John Gordon, Cupids, Nild. Brodeur, Jean Charles, Ottawa, Ont. Caldwell, Charles Edward, Conception Bay, Nfld. Clossey, Emile Guillaume, Montreal, P.Q. Cox, Leonard Gordon, Ottawa, Ont. Currier, Joseph Humphrey, Ottawa, Ont. Davidson, Stanley Cecil, Montreal, P.Q. Davis, William Wallace, Ottawa, Ont. Dupuis, Rene, Pike River, P.Q. Evans, Charles Durward, Quebec, P.Q. Fleming, Canmore Drake, Windsor, Ont. Foster, Frederick Lawton, St. John, N.B. Fotheringham, Jack Popham, Ottawa, Ont. Friedman, Victor Edward, Montreal, P.Q. Goldberg, Harry Julius, Montreal, P.Q. Hamel, Albert, Three Rivers, P.Q. Hamilton, Geoffrey John, Montreal, P.Q. Holcomb, Harcourt Edward, Ste. Anne de Bellevue, P.Q. Holden, John Hastie, Montreal, P.Q. Jenks, William Stuart, Halifax, N.S. Jerrom, Cyril Lewis, Cornwall, Ont. Kingan, Gordon Herron, Montreal, P.Q. Lawrence, Frederick Sylvester, Montreal, P.Q. Leitch, Hugh James, Montreal, P.Q. .emienx, Charles, Montreal, P.Q. Mackenzie, George Home, Kansas City, Mo., U.S.A. Maclaren, Alexander Barnet, Buckingham, P.Q. Macnutt, Erskine Keir, Malpeque, P.E.I. McDonald, Somerled L. Montreal, P.Q. McMeans, Lendrum Edmund, Winnipeg, Man. Munn, Wilfred Lockerby, Montreal, P.Q. Junro, Gordon Hugh, Peterborough, Out. Murphy, Edward Justin, New York, N.Y. O'Heir, Hugh Bingham, Hamilton, Ont. Cliver, Cuthbert Jack, New York, U.S.A. Oxens, Owen Norreys Harrington, Montreal, P.Q. Persons, Frederick Errol Leslie, Montreal, P.Q. " W. Gordon Locklin, Montreal, P.Q. Raginsky, Bernard, Montreal, P.Q. Raskin, Franz Liseph, Montreal, P.Q. Reaper, Clarence Paul, Montreal, P.Q. Reeve, Charles Lailey, Montreal, P.Q. Renouf, Edward Trudeau, Montreal, PQ Rhand, John, Montreal, P.Q. Ridout, Andrew Maurice, Montreal, P.Q.

Salter, Frederick Cumberland, Montreal, P.Q. Schleifstein, Montague Lawrence, Montreal, P.Q. Scott, Lewis John, Grand Falls, Nfld.
Sherrard, Edwin Atwater, Montreal, P.Q. Shier, Bruce Banks, Montreal, P.Q. Simpson, James Catanach, Jr., Montreal, P.Q. Snyder, Earl, St. Jacobs, Ont.
Stethem, John Eric Holt, Montreal, P.Q. Stirling, Laurie Brodie, Montreal, P.Q. Taylor, Clarence Wesly, Carberry, Man. White, Gerald Leland, London, Ont. Winter, Frederick Roberts, Montreal, P.Q. Wylde, Charles Napier, Montreal, P.Q. Zybach, Jack Melchior, Niagara Falls, Ont.

# STANDING IN THE SEVERAL SUBJECTS.

# (1) STUDENTS IN ARCHITECTURE.

### ARCHITECTURAL DESIGN.

- Fifth Year.—Class I.—None. Class II.—Lyman. Class III.—None. Fourth Year.—Class I.—None. Class II.—Goodman. Class III.—Van Etten.
- Third Year.—Class I.—None. Class II.—Perry, Brown (L. E.), Luke. Class III.—Watt, Morris.
- Second Year.—Class I.—Wilson (P. R.). Class II.—Amos and Bouillon and Champagne and Cooper, equal. Class III.—MacLeod. Macduff.

### ARCHITECTURAL DRAWING.

- Fourth Year.—Class I.—Goodman. Class III.—None. Class III.—Van Etten.
- Third Year.—Class I.—Perry. Class II.—Luke; Brown (L. E.) and Morris and Watt, equal. Class III.—Champagne.
- Second Year.—Class I.—Champagne and Macleod, equal. Class II.—Bouillon, Macduff. Class III.—Cooper, Wilson (P. R.).
- First Year.—Class I.—Shaw. Class II.—Consiglio, Robertson, Adams. Class III.—None.

### ARCHITECTURAL ESSAY.

- Fifth Year.—Class I.—None. Class II.—Lyman, Durnford. Class III.—None.
- Fourth Year.—Class I.—None. Class III.—None. Class III.—Good-man, Van Etten.

- 7 hird Year.—Class I.—Perry, Luke. Class II.—Morris and Watt, equal; Brown (L. E.). Class III.—Grondin.
- Second Year.—Class I.—Wilson (P. R.), Cooper. Class II.—Bouillon; Amos and Champagne and Macduff and MacLeod, equal. Class III.—None.

# ARCHITECTURAL GEOMETRY.

- Second Year,—Class I.—Cooper, Class II.—Bouillon, Class III.—Wilson (P. R.), Amos.
- First Year.—Class I.—None. Class III.—None. Class III.—Consiglio and Shaw, equal; Robertson.

### BUILDING CONSTRUCTION.

Second Year.—Class I.—Wilson (P. R.), MacLeod, Cooper. Class II.—Amos, Macduff, Grondin. Class III.—Bouillon.

### BUILDING DETAILS.

Second Vear.—Class I.—Wilson (P. R.), Cooper, MacLeod. Class II.—Amos and Bouillon, equal. Class III.—Macduff, Grondin.

# ELEMENTS OF ARCHITECTURE.

First Year,—Class I.—None. Class II.—Shaw, Consiglio; Adams and Robertson, equal. Class III.—Champagne.

### ELEMENTS OF COMPOSITION.

Nec. 14 Year,—Class I.—None. Class II.—Wilson (P. R.), MacLeod. 11ss III.—Cooper and Macduff, equal: Amos, Bouillon, Champagne.

#### FREEHAND DRAWING.

- Third rear,—Class I.—Perry, Luke. Class II.—Morris. Class III.—Watt, Amos.
- Second Year.—Class I.—Cooper. Class II.—Bouillon and Macduff, equal; MacLeod and Wilson (P. R.), equal. Class III.—Champagne
- First Visr.—Class I.—Shaw. Class II.—Consiglio, Robertson. Class III.—Adams.

### HEATING AND VENTILATION.

Fourth Year,—Class I.—None. Class II.—Brown (L. E.). Class III. VanEtten.

### HISTORY OF ARCHITECTURE (CLASSIC).

Second Year.—Class I.—Cooper, Wilson (P. R.). Class II.—Bouillon. Class III.—Macduff.

# HISTORY (GENERAL).

First Year.—Class 1.—None. Class II.—None. Class III.—Adams, Shaw, Consiglio, Robertson.

# HISTORY OF ARCHITECTURE (MEDIAEVAL).

Fourth or Third Years.—Class I.—Perry, Luke. Class II.—None. Class III.—Morris, Watt, Brown.

# INISTORY OF ARCHITECTURE (MODERN).

Fifth Year.—Class I.—Durnford. Class II.—Lyman. Class III.—None.

# HISTORICAL DRAWING.

Fifth Year.—Class I.—None. Class III.—None. Class III.—Lyman. Durnford.

# HYGIENE OF BUILDINGS.

Fourth Year.—Class I.—None. Class II.—Brown (L. E.), Van Etten. Class III.—None.

#### MODELLING.

- Fifth Year.—Class I.—Durnford, Lyman. Class II.—None. Class III.—None.
- Fourth Year.—Class I.—Goodman, Brown (L. E.), VanEtten. Class II.—None. Class III.—None.

# ORNAMENT AND DECORATION (NO. 11).

Fourth and Third Years.—Class I.—Perry. Class II.—Luke and Morris, equal; Brown (L. E.) and Van Etten, equal; Goodman. Class III.—Watt.

# ORNAMENT AND DECORATION (NO. 12).

Fourth and Third Years.—Class I.—Perry, Brown (L. E.), Luke.

Class II.— Morris, VanEtten. Class III.— Watt, Grondin,
Champagne.

### PERSPECTIVE.

Third Year.—Class I.—Perry. Class II.—None. Class III.—Luke; Morris and Watt, equal.

### PHYSICS.

First Year.—Class I.—None. Class II.—None. Class III.—Adams and Consiglio, equal; Robertson.

### PHYSICS LABORATORY.

First Year.—Class I.—Consiglio and Shaw, equal. Class II.—None. Class III.—Strong. Robertson, Adams.

#### PROFESSIONAL PRACTICE.

Fifth Year.—Class 1.—None. Class II.—Lyman. Class III.—Durnford.

### STRUCTURAL ENGINEERING.

- Third Year.—Class I.—Perry, Morris. Class II.—Brown (L. E.).
  Class III.—Watt.
- Second Year.—Class I.—Cooper. Class II.—MacLeod, Wilson (P. R.), Class III.—Macduff, Strong, Amos, Bouillon.

### SUMMER READING AND WORK.

- Fifth Vear.—Class I.—None. Class II.—Lyman, Durnford. Class III.—None.
- Fourth Year.—Class I.—None. Class II.—None. Class III.—Van Etten, Goodman.
- Third Year.—Class I.—None. Class III.—Luke. Class III.—Morris and Watt, equal: Brown (L. E.).
- Second Year.—Class I.—Cooper, Class II.—Amos, Class III.—Wilson (P. R.): Bouillon and Maedoff and MaeLeod, equal.

### THEORY OF PLANNING.

- Fifth and Fourth Years.—Class I.—None. Class II.—Lyman, Goodman. Class III.—VanEtten, Durnford.
- Third Year.—Class I.—None. Class II.—Brown (L. E.), Morris. Class III.—Perry, Luke, Watt.

# (2) STUDENTS IN OTHER COURSES.

# APPLICATIONS OF ELECTRICITY.

Fourth Year.—(lass I.—Bishop; Vineberg and Gliddon, equal; Anderson, Canning. Class II.—Louttit, Jackson, Thompson (G. M.), Sloves, Acton, Fellows (lass III.—Vaughan, Hill, Whelen; Macdonald and Salamis, equal; Eaton.

### APPLIED ELECTRO-CHEMISTRY,

Fourth Year.—Class I.—Jelly, Giles, Croft, Timmerman; Green and Thomson (W. W.) and Kay, equal; Anderson and Cuddy and Lordly and Mitchell and Thompson (G. M.), equal. Class II.—Louttit and McIntyre and Warriner, equal; Challenger and Canning, equal; Calkin, Cambron, Gliddon, Johnston; Cohen

and Harris, equal; Lantz, Stroud, Jackson, Phelan, Acton; Copping and Purcell, equal. Class III.—Cockfield; Hill and Patterson, equal; Forbes and Henderson and Yates, equal; Whelen, Vineberg, Goodwin, Sloves: Fellows and Irving, equal; Hyndman and Vaughan, equal; Kennedy and Salamis and Smith (R. H.), equal.

### BRIDGE DESIGN.

Fourth Year.—Class I.—Brault, Cunningham, Macphail. Class II.—
Fortin and Hannan, equal; Watson; Gardner and Muir, equal;
Gauthier and Perrault, equal. Class III.—Loy; Farmer and
O'Sullivan, equal; Hart and Robertson, equal.

### CHEMISTRY.

### ADVANCED INORGANIC CHEMISTRY.

Fourth Year.—Class I.—Johnston. Class II.—Purcell, Timmerman, Challenger: Kay and Yates, equal. Class III.—Giles, Copping, Forbes, Cohen, Calkin, Hyndman.

### ADVANCED ORGANIC CHEMISTRY.

Fourth Year.—Class I.—Timmerman. Class II.—Jelly; Green and Lantz, equal; Croft. Thomson (W. W.), Mitchell (F. L.). Class III.—Lordly, Cambron, Cuddy; Cohen and McIntyre, equal; Smith (R. H.). Stroud, Cockfield; Fox and Goodwin and Parsons, equal.

## FOOD CHEMISTRY.

Fourth Year.—Class I.—Green. Class II.—Lordly and Mitchell (F. L.), equal; Thomson (W. W.); Croft and McIntyre, equal; Lantz and Timmerman, equal; Jelly, Cuddy, Cambron. Class III.—Warriner. Smith (R. H.), Cockfield, Irving, Goodwin, Stroud.

# GENERAL CHEMISTRY.

Second Year.—Class I.—Buller and Yorston, equal; Moore; Radley and Wood, equal; Bloomfield and Cregeen, equal; Connel and Harbert, equal; Culpeper; Read and Webster, equal; Tallon; Horsey and Steacic, equal; Oliver (J. H.) and Sherwood, equal; Ambridge and Rorke, equal; Abbott-Smith and Denis and Kennedy and McNaughton and Toole, equal. Class II.—Gordon and Grant and Simpson (R. L.), equal; Ross and Turnbull, equal; Elkington and Lea and Matheson and Mills, equal; Johnson and Whittemore, equal; Brisbane and Davies (C. B.)

and Desbarats and Terrance, equal; Finlayson and Graham and Malone and Munro (D. J.) and Stirling and Streadwick, equal; Bishop (E. G.) and Laidley and Smith (R. M.) and Winter and Woollcombe, equal; Armstrong and Bradshaw (F. W.) and Champion and Finley and Rochester and Willis, equal; Allan and Crain and Fagan and Gilbert and Hague and Katz and Raginsky, equal; LeBaron and Legg and Patton, equal; De Salaberry and MacLaren (A. R.) and Plow and Smith (A. E.) and Stephen and Timmis, equal; Bradshaw (G. R.) and Downs and Livingstone, equal; Budden and Desloover and Smallhorn, equal: Cleveland and Goldberg and Jones and McKindsey and Peters, equal. Class III.—Bishop (J. G.) and Craik and Eadie and Parsons and Smith (A. W. S.), equal; Chisholm and Cuttle and Dalrymple and Davidson and McLagan, equal; Antliff and Brodeur (J. C.) and Gamble and Pelletier, equal; Cooper and Fotheringham and Kezar and Powell (A. T.) and Roquet and Simpson (J. C.) and Stone, equal: Blackall and Dupuis and Kingan and Kingsmill and McCracken and Powell (F. E.) and Scott (L. J.), equal; Buffam and Friedman and Jerrom and Lemieux and Taylor, equal; Blean and Jackson and Maclaren (A. B.) and McCaw and Moran and Munro (G. II.) and Patterson, equal; Cox and Davis (W. W.) and Dormer and Foster and Morin and Reaper, equal; Brough and Brumell and Foss (D. B.) and Foss (L. J.) and Gegg and Holcomb and Snyder and White, equal; Dickinson and Evans, equal; Lawrence and Mitchell and Oliver (C. J.) and Taschereau and Velasco, equal; Raskin, Gandet; Binns and Harling and Quinlan and Sherrard, equal: Caldwell and Cross and Rhind and Scott (J. McD.), equal.

### HISTORY OF CHEMISTRY.

Fourth Year—(lass I.—Johnston, Mitchell (F. L.), Thomson (W. W.); Croft and Timmerman, equal. Class II.—Jelly, Yates, Calkin, Purcell, Challenger; Copping and Green, equal; Cockfield and Cohen and Kay, equal. Class III.—Stroud; Fox and Lordly, equal; Cuddy and McIntyre and Warriner, equal; Giles and Lantz, equal; Forbes, Gunton; Goodwin and Hyndman, equal; Cambron, Smith (R. H.), Irving.

## INORGANIC INDUSTRIAL CHEMISTRY.

Fourth Year.—Class I.—Jelly, Mitchell, Timmerman, Croft; Challenger and Lantz, equal; Cuddy and Jordan, equal; Calkin and Harrison and Johnston, equal. Class II.—Cockfield and Green and Lordly and Yates, equal; Goodwin and Warriner, equal;

McIntyre and Smith (R. H.), equal; Gibb and Giles, equal; Kay; Cohen and Thomson (W. W.), equal; Forbes and Fowler and Henderson, equal; Clark (R. G.), Stroud; Cambron and Purcell, equal. Class III.—Copping and Gunton and Hyndman and Irving, equal; Nutter.

# INORGANIC QUALITATIVE ANALYSIS.

Third Year.—Class I.—Carlyle, Weldon. Class II.—Porritt, Hastings.

Class III.—Bissell, Macdonald, Wightman, Nesbitt, Wilson (J. M.).

### INORGANIC QUANTITATIVE ANALYSIS.

Third Year.—(Chemistry and Chemical Engineering.)—Class I.—Grant, Munro (W. C.), Brooks, Tatley. Class II.—Macnaughton, Carson, Taylor (J. E.), Wright. Class III.—Loebel; Ahern (A. W.) and Boronow, equal; Schleifstein, Clarke (I. W.), Binmore, Farquharson, Stockwell.

Third Year.—(Metallurgical Engineering.)—Class I.—None. Class II.—Duff; Humes and McClelland, equal. Class III.—Kyle; Godard and Hamilton and Murphy (E. J.), equal; McCallum and Wait, equal.

### ORGANIC CHEMISTRY.

Third Year.—Class I.—Binmore, Taylor (J. E.), Tatley; Ahern (A. W.) and Farquharson, equal; Grant. Class II.—Brooks, Boronow, Clarke (I. W.). Class III.—Patterson; Loebel and Ross (J. H. D.), equal; Carson; Brown (G. B.) and Gooch, equal; Gurman, Midgley, Gunton; Drummond and Fraser, equal; Macnaughton and Munro (W. C.) and Schleifstein, equal.

### ORGANIC INDUSTRIAL CHEMISTRY.

Fourth Year.—Class I.—Croft, Johnston, Cuddy, Green; Jelly and Purcell and Thomson (W. W.), equal; Lantz and Mitchell (F. L.) and Stroud and Timmerman, equal. Class II.—Yates; Copping and Goodwin and Lordly, equal; Challenger; Gunton and Kay, equal; Cockfield and McIntyre, equal; Irving; Forbes and Smith (R. H.), equal; Cambron and Hyndman, equal. Class III.—Calkin, Giles; Cohen and Warriner, equal.

# PHYSICAL CHEMISTRY.

Third Year.—Class I.—Brooks and Gooch, equal; Fraser and Harris, equal. Class II.—Grant, Ross (J. H. D.), Tatley, Farquharson, Binmore, Taylor (J. E.), Loebel, Gunton. Class III.—

Shotwell, Clarke (I. W.), Woodward; Ahern (A. W.) and Munro, equal; Drummond; Macnaughton and Schleifstein, equal; Carson and Stockwell, equal; Crane and Mitchell (J. M.) and Wright, equal; Abbott-Smith (R. B.) and Boronow, equal.

### PHYSICAL CHEMISTRY AND LABORATORY.

Fourth Year.—Class I.—Jelly, Johnson, Croft, Green, McIntyre.

Class II.—Timmerman; Cambron and Mitchell (F. L.) and
Thomson (W. W.), equal; Kay, Calkin; Forbes and Goodwin,
equal; Giles, Smith (R. H.), Lordly. Class III.—Lantz, Cohen,
Cuddy, Yates; Challenger and Copping, equal; Stroud, Irving;
Cockfield and Fox and Hyndman, equal; Parsons and Purcell,
equal.

#### CRYSTALLOGRAPHY.

Fourth Year.—Class I.—None. Class II.—Henderson (C. D.). Class III.—None.

### DESCRIPTIVE GEOMETRY.

First Year.—Class I.—Atkinson, Dion, Dick, Ogilvy, Mercier; Matheson (G. L.) and Miller (A. P.) and Phipps, equal; Buzzell and Kent and Lanctot and Shlakmann, equal; Benjamin; Gravel and Wilson (G.), equal; McCall and Snyder, equal; Shaw (G. E.); Barnes and Becking and Delcellier and Howes and Warren (F. B.), equal; Findlay and Paterson, equal; Farmer, Stewart (D. L.); Davidson and Finlayson (A. W.) and James and Rochester and Schlee, equal. Class II.—Bryant; Ferguson and Manson and Weisburgh, equal; Ashby and Shatford, equal; Campbell and Darling and Goodall and Kirschberg and Pringle, equal; Farrell; Braithwaite (E. E.) and Fairbairn and Higgerty and Miller (A. J.), equal; Burroughs and Donohue and Heyman and Wilson (II.), equal; White (C. P.); Bray and Logan and Poulin and Ridout and Rumpel, equal; Andrews and Freedman and Mitchell, equal; Hayes; Anderson and Racey, equal; Douglas and Wardrope and Warren (W. A.), equal. Class III.-Gray, Trenholme; Addie and Cochran and Muir and Starke and Stockwell, equal; Johnson; Boyd and Finlayson (S. M.) and McLaren and Pollock and Seale and Simmonds and Stewart (H. M.), equal; Buraschi and Mc-Gregor and Woolsey, equal; Brown and Butler (B. M.) and Lawrence and Malone and Ree, equal; Lane and Macnab (A. G.), equal; Gillett and Nutting, equal; MacGilles; Butler (E. W.) and Taylor, equal; Goldstein and McMaster, equal; Draper and Giles, equal; Conture and Donnelly and Foy and Harris and Holland and Moore and Olive and Rudenko and Smith and Timmins and White (W. J.) and Whitehead and Whittall and Williamson, equal.

# DESCRIPTIVE GEOMETRY AND PERSPECTIVE.

Second Year .- Class I .- Culpeper and McKindsey, equal; Layne and Rorke, equal; Smith (A. E.); Kennedy and Moore, equal; Turnbull; Armstrong and Blackall and Stephen, equal; Brisbane and Brough and Matheson and Sherwood, equal; Harbert; Budden and Craik and Radley and Webster, equal; Buller and McNaughton and Wood, equal; Griffith; Munro (D. J.) and Read (D. E.), equal; Abbott-Smith and Binns and Grant and Oliver (C. J.), equal; Chisholm and Gaudet and Laidley and Scott (J. M.) and Stirling, equal; Davies (C. B.) and Faith and Wylde, equal; Bloomfield and Champion and Lea and McCaw, equal; Allan and Streadwick, equal; Johnson and Mills and Taschereau, equal; Cooper (P. E.) and Cregeen and Livingstone, equal. Class II.—Terrance and Toole, equal; Crain and Gamble and Ross, equal; Connell and Eadie and Kezar, equal; McLagan and Parsons and Powell (A. T.) and Steacie, equal; Horsey and Patton and Rochester and Velasco, equal; Gilbert and Holcomb and Legg and Malone, equal; Brummell and Foss (D. B.) and Oliver (J. H.) and Powell (F. E.), equal; Desloover and Findlayson and Gegg and Gordon and Katz and Willis, equal; Ambridge and Brodeur (J. C.) and Scott (L. J.), equal; Desbarats and Finley and Goldberg and Lawrence and Smith (R. M.), and Yorston, equal; Bieler and Bradshaw (G. R.) and Carpenter, equal; Antliff and Fagan and Foster and Hamel and MacNutt and Patterson and Plow and Renouf and Simpson (J. C.) and Timmis, equal. Class III.-Jackson and Jones, equal; Clark and Holden and LeBaron and Morin, equal; Raskin and Smith (A. W. S.), equal; Elkington and Evans and Owens, equal; Cuttle and Foss (L. J.) and MacLaren (A. R.), equal; Bleau and Downs and Jerrom and Simpson (R. L.) and Tallon and Woollcombe, equal; Mitchell and Smallhorn, equal; Buchanan and Buffam and Dormer and MacLaren (A. B.) and Pelletier, equal; Bishop (J. G.) and Dalrymple and Raginsky and Reid (H. E.), equal; Roquet and Stone, equal; Baillie and Davidson and Graham and Hague and Hamilton, equal; Bishop (E. G.) and Brodeur (J. P.) and Fleming and McCracken and Stethem, equal; Dupuis and Jenks and Moran and O'Heir, equal; Dickinson and Kingan and Peters, equal; Bradshaw (F. W.) and Caldwell and Currier and Kingsmill and McMeans and Snyder and White and Whitemore, equal.

#### DESIGNING.

Fourth Year.—Class I.—Congleton, O'Halloran; Langstroth and Maxwell and Winslow, equal; Smith (D. W.). Class II.—Durant and Ward, equal. Class III.—Jenekes, Macfarlane; Hall and Mooney, equal; Wilson (J. K.), Wilkins.

### ECONOMICS.

Third Year.-Class I .- Macnaughton and Mott, equal; Biggar and Mitchell (R. J.), equal; Paddon, Carson; Bush and Pevzner, equal: Woodward; Clarke (E. L.) and Desbarats and McTaggart, equal; Hastings and MacGregor and Ross (J. H. D.) and Taylor (E. P.) and Wright, equal; Brown (E. V.) and Cousineau and Holmes and Tatley, equal; Brooks; Ahern (A. W.) and Bastable and Duff and Reid (E. A.) and Thompson, equal; Carlyle and Gunton and Taber and Taylor (J. E.) and Wilson (H. A.) and Woolward, equal; Grant and Kerr, equal; Hulburd and Weldon, equal. Class II.—Schleifstein; Banfill and Binmore and Cartwright and Johnson and Midgley, equal; Boronow and Farquharson and Humes and Wain, equal; Evans and Tucker, equal; Gurman and Kirsh and Martin and Mac-Keen and Munro (W. C.), equal; Benett and Holt and Morrissette and Roberton, equal; Clark (G. S.) and Crawford and McClelland, equal; Lorin, Loebel; Fisk and Ford and Russel and Spratt, equal; Anderson and Glen and Godard and Notman, equal; Drummond and Kyle and McLennan and Parker and Potter and Rutherford and Simons, equal; Handy and Messenger and Reed (G.), equal; Crane and McDougall, equal; Wilder, Class III.—Armstrong and Murphy (E. J.) and Porritt, equal; Gordon and Jandrew and Fraser and Macdonald (S. L.), equal; Clerk; Coughlan and King, equal; Bonneville; Ahern (P. C. B.) and Elliott and McEvoy, equal; MacNider and Mitchell (J. M.), equal; Bissell and Bradfield and Wait, equal; Murphy (A. G. S.); Mackenzie (W. B.) and Macrae, equal; Eager and Wightman, equal; Foss; Cloutier and Delaney and Gooch and Hamilton and Lawrence and Mackenzie (G. H.) and Morrison and Salter and Wilson (J. M.), equal.

# ELECTRIC LIGHT AND POWER DISTRIBUTION.

Fourth Year.—Class I.—Gliddon, Jackson. Class II.—Canning, Thompson (G. M.), Hill. Phelan. Anderson, Whelen. Class III.—Louttit, Acton; Eaton and Vineberg, equal; Bishop, Salamis, McDonald; Fellows and Sloves and Vaughan, equal.

### ELECTRIC TRACTION.

Fourth Year.—Class I.—Vineberg, Fellows, Eaton; Gliddon and Jackson, equal. Class II.—Bishop, Whelen, Hill, Canning, Thompson (G. M.). Acton; Anderson and Macdonald, equal. Class III.—Sloves, Louttit; Salamis and Vaughan, equal.

### ELECTRICAL DESIGNING.

Fourth Year.—Class I.—Jackson, Canning, Gliddon, Louttit. Class II.—Anderson, Vineberg, Eaton, Sloves; Fellows and Macdonald, equal; Thompson (G. M.). Class III.—Vaughan, Bishop, Hill, Whelen; Acton and Salamis, equal.

### ELECTRICAL ENGINEERING.

- Fourth Year.—Class I.—Anderson, Canning, Gliddon; Bishop and Jackson, equal. Class II.—Eaton and Thompson (G. M.) and Vineberg, equal; Fellows and Louttit and Sloves, equal; Vaughau. Class III.—Acton, Macdonald, Whelen, Hill.
- Third Year.—Class I.—Mott, Bonneville, Clark (E. L.), Bush, Taber.

  Class II.—Mitchell (R. J.) and Paddon, equal; Desbarats,
  Gordon, Russel, Banfill. Class III.—Parker and Wonham,
  equal; Brown (E. V.) and Kerr, equal; Handy, Glen.

### ELECTRICAL PHOTOMETRY AND ILLUMINATION.

Fourth Year.—Class I.—Phelan, Whelen; Gliddon and Thompson (G. M.), equal. Class II.—Canning, Acton. Class III.—Jackson and Louttit, equal; Bishop; Anderson and Hill and Vineberg, equal; Salamis, Fellows. Eaton. Vaughan; Macdonald and Sloves, equal.

### ELECTRO-METALLURGY.

Fourth Year.—Class I.—Harrison; Gliddon and Jackson and Jordan, equal. Class II.—Hill, Acton; Fellows and Henderson, equal; Canning and Fowler and Louttit and Nutter, equal; Anderson. Class III.—Vineberg; Bishop and Clossey and Thompson (G. M.), equal; Sloves and Whelen, equal; Clark (R. G.); Salamis and Vaughan, equal; Eaton, Kennedy, Macdonald.

### ELEMENTS OF ELECTRICAL ENGINEERING.

Fourth and Third Ycars.—Class I.—Croft, Macphail, Harris, Cunningham, Harrison, Johnston (H. W.). Class II.—Lordly; Brault and Jelly, equal; Muir, Biggar; Calkin and Fowler and Green, equal; Brow and Gauthier and Hyndman and Kay and Lantz and McIntyre, equal; Fortin; Cuddy and Morrissette,

equal; Davis and Giles, equal. Class III.—Nutter; Forbes and O'Sullivan and Purcell, equal; Gardner; Drewry and Loy and Roberton and Smith (R. H.), equal; Hannan and Mitchell, equal; Challenger and MacNider, equal; Clark (R. G.) and Hart, equal; Clark (G. S.) and Cockfield and Dewar and Jandrew and Stroud, equal; Perrault and Watson and Wilson (H. A.), equal; MacGregor; Copping and Ford, equal; Crawford and Goodwin and Holmes, equal; Bastable and Cambron and Elliot and McLennan and Notman and Tansley and Warriner and Weldon, equal.

#### ENGINEERING ECONOMICS.

Fourth Year.-Class I.-Macphail and Whelen, equal; Green, Jelly, Cunningham, Bain, Mitchell, Farmer; Congleton and Cuddy and Kay and Louttit, equal; Brow and Hannan and O'Sullivan and Phelan, equal; Gill; Fowler and Palmer, equal. Class II. Croft and Gardner, equal; Copping and Fellows, equal; Bishop and Canning and Gliddon, equal; Harrison and Lantz and Mawdsley and Thompson (G. M.) and Weldon, equal; Drewry and Fortin, equal; Hyndman and Johnston and Lordly, equal; Anderson and Macfarlane and Saunders, equal; McCurdy and Perrault, equal; Watson; Acton and Lov and Macdonald and Vincberg and Yates, equal; Hill and Robertson, equal; Calkin and Cockfield and Goodwin and Vaughan, equal; Davis and Jackson, equal; Irving and Maxwell and Melntyre and Muir and O'Halloran, equal; Dewar and Mooney, equal. Class III. - Smith (R. 11.) and Stroud and Warriner, equal; Cromwell and Nutter, equal; Brault and Hall and Sloves, equal; Forbes and Tordan and Livingstone and Winslow, equal; Gauthier and tilles and Jenekes, equal; Tansley, Rochester, Purcell, Smith (1) W.), Langstroth; Eaton and Kennedy, equal; Cambron and Salamis, equal.

# ENGINEERING LAW.

Fourth Year.—Class I.—Farmer, Kay, Jelly; Gill and Green, equal; Cuddy and Jordan and Louttit and Macphail and Palmer and Warriner, equal; Anderson and Canning and Saunders and Weldon, equal. Class II.—Cunningham and Fellows and Kennedy and Lantz and Lordly and Watson, equal; Bishop and Forbes and Macfarlane, equal; Calkin and Cockfield and Cohen and Gliddon and Purcell and Robertson, equal; Congleton and Gardner and Tansley and Thompson (G. M.), equal; Giles and Jackson and Livingstone and Loy and Timmerman and Whelen and Yates, equal; Croft and Hall and Hannan and Harrison and Mawdsley and O'Sullivan and Thomson (W. W.)

and Winslow, equal; Acton and Johnston, equal; Mitchell and Wells, equal; Copping and Cromwell and Hyndman, equal; Challenger and Fowler, equal; Brault and Fortin and Hill and Scriver, equal; Davis and Gauthier and Jenckes and McIntyre and Salamis, equal. Class III.—Bain and Drewry and Macdonald (D.) and Sloves and Vaughan, equal; Brow and Clark and Dewar and Vineberg, equal; Henderson; Cambron and Durant and Irving and O'Halloran, equal; Perrault; Clossey and Goodwin and Mooney, equal; Wilkins; Lyman and Muir and Nutter and Smith (R. H.) and Stroud, equal; Eaton and Langstroth and Smith (D. W.), equal; Maxwell and Rochester and Ward, equal; Durnford, Wilson (J. K.); Ferguson and Gibbs, equal.

### ENGLISH.

First Year.-Class I.-Mercier, Archer, Ogilvy, Holland; Delcellier and Shlakman, equal; Dick and Finlayson (A. W.), equal; Howes and Kent, equal. Class II .- James; Bray and Buzzell and Davidson and McCall and Smith, equal; Johnson; Dion and Hofmann and Seale and Simmonds, equal; Barnes and Darling and Naismith, equal; Finlayson (S. M.); Rochester and Starke, equal; Stewart (II. M.); Bailey (L. W.) and Becking and Freedman and Phipps and Pollock and Schlee and Shaw (C. E.) and Weisburgh and Whitehead, equal. Class III .- Rumpel and Taylor, equal; Adams and Farmer and Findlay and Hayes and Kirschberg and Snyder and Stockwell and Wardrope, equal; Benjamin and Douglas and Fairbairn and Farrell and Lawrence and Warren (W. A.), equal; Ree; Ashby and Draper and Ferguson and Giles and Heyman and Lanctot and Manson and McNab (A. H.) and Racev and Robertson and Rudenko and Warren (F. B.), equal; Burroughs and Forbes and Trenholme, equal; Buchanan and Consiglio and Moore and Shaw (G. E.), equal; Braithwaite (J. Y. W.) and Foy and Goldstein and Gray and Higgerty and Lane, equal; Allcorn and Brown and McMaster and Mitchell and Nutting, equal; Andrews and Butler (B. M. S.) and Cornell, equal; Anderson and Butler (E. W. R.) and Gravel and Harris and McLaren and Miller (A. J.) and White (W. J.) and Winter and Woolsey, equal; Buraschi and Cram and Goodall and McDonald (H. R.), equal.

# EXPERIMENTAL ENGINEERING.

Fourth Year.—Class I.—Congleton and Winslow, equal; Maciarlane, Langstroth. Class II.—Wilson (J. K.); Maxwell and Smith

(D. W.) and Ward, equal. Class III.—O'Halloran; Durant and Mooney, equal; Jenckes, Wilkins.

### FIRE ASSAYING.

- Fourth Year.—Class I.—Kay: Calkin and Hyndman and Johnston (11, W.), equal. Class II.—Copping and Giles and Yates, equal; Gibbs, Purcell, Forbes. Class III.—None.
- Third Year.—Class I.—Carlyle, Humes, Duff, Weldon, Bissell, Nesbitt, Hastings, Kyle. Class II.—Macdonald and Mackenzie (G. B.), equal; Godard and Wait, equal; Porritt, McClelland; Macoun and Pevzner and Scott, equal; Hamilton, Wightman, Wilson (J. M.), Murphy (E. J.).

### FOUNDATIONS AND MASONRY.

Third Vear.—Class I.—McTaggart. Class II.—Murphy (A. G. S.) and Reid (E. A.), equal; Lorin; Fisk and Messenger and Rutherford and Wilder, equal; Woolward; Martin and Thompson, equal; Bates and Reiffenstein, equal; MacKeen and Reed (G.), equal; Salter and Spratt and Wain, equal; Cartwright and Mackenzie (W. B.), equal. Class III.—Bradfield; Consineau and Eager, equal; Root, Delaney.

### FREEHAND DRAWING AND LETTERING.

First Year.-Class I.-Dick, Shaw (G. E.), Buzzell, Delcellier; James and McCall, equal; Stewart (H. M.); Snyder and White (C. P.), equal; Benjamin and Cochran, equal; Ferguson and Lanctot and Morrin and Scale and Stewart (D. L.), equal. Class 11.-Ashby and Miller (A. J.) and Pringle, equal; Bouchard and Goodall, equal; Pollock and Smith and Wardrope, equal; Barnes and Heyman, equal; Gray and McGregor and Ridout and Wilson (II), equal; Hayes; Braithwaite (E. E.) and Schlee and Warren (F. B.), equal; Bryant and Freedman and Kent and Malone and Simmonds and Stockwell and Taylor and White (W. J.), equal; Allcorn and Findlay and Finlayson (A. W.) and Howes and Mitchell and Phipps, equal; Darling and McNab (A. H.), equal; Buraschi and Cornell and Matheson (G. L.) and Miller (A. P.) and Warren (W. A.) and Wilson (G), equal; Goldstein and Woolsey, equal; Butler (B. M.) and Draper and Harris and McMaster and Trenholme and Vernot, equal Class III .- Farrell and Kirschberg, equal; Andrews and Bray, equal; Couture and Higgerty and Shlakman, equal; Gillett and Naismith, equal; Boyd and Ogilvy and Rumpel, equal; Dion and Manson and Starke, equal; Shatford; Anderson and Campbell and Cooper and Fairbairn and Farmer and Holland and Paterson, equal; Addie and Luxton and MacGillis and Thompson, equal; Becking and Gravel and Lane and Torrance and Whittall, equal; Bailey (L. W.), Poulin; Archer and Foy and Lawrence and Roy, equal; Finlayson (S. M.) and Johnson and Logan and Macnab (A. G.) and Matheson (G. W.) and Panneton (J. S.) and Racey and Winter, equal. Unranked.—Atkinson.

#### GEODESY.

Fourth Year.—Class I.—Macphail. Class II.—Cunningham, Fortin; Brault and Farmer, equal; Gardner and Watson, equal; Hannan, O'Sullivan. Class III.—Drewry and Robertson, equal; Loy, Perrault, Muir.

### GEODETIC FIELDWORK.

Fourth Year.—Class I.—Cunningham, Watson; Fortin and Gardner. equal. Class II.—Brault, O'Sullivan, Macphail, Farmer, Loy. Class III.—Hannan, Robertson, Perrault, Muir.

### GENERAL GEOLOGY.

Third Year.—Class I.—Carlyle; Taylor (J. E.) and Weldon, equal; McTaggart, Nesbitt, Bissell; Binmore and Godard and Humes, equal. Class II.—Messenger; Cartwright and Duff and Reid (E. A.) and Wightman, equal; Mackeen and Pevzner, equal; Woolward, Hamilton, Wilson (J. M.), Fisk; Bates and Davis and Hastings and Wain, equal; Eager and Kyle and Porritt, equal; Mackenzie (G. H.); Murphy (A. G. S.) and Thompson, equal; Scott and Wait, equal. Class III.—Bradfield; Lorin and Reed (G.), equal; Macdonald (S. L.) and Morrison, equal; Cousineau; Hamel and Spratt and Wilder, equal; Delaney, Martin, Ross (C. G.), Rutherford; Mackenzie (W. B.) and Macoun and Salter, equal

### GEOLOGY (HISTORICAL).

Fourth Year.—Class I.—Bain, Gill, Palmer, Mawdsley. Class II.— Livingstone: Cromwell and Saunders, equal. Class III.—Wells.

### GEOLOGY OF CANADA.

Fourth Year.—Class 1.—Gill; Bain and Brow and Palmer, equal; Cromwell, Mawdsley. Class II.—Saunders, Livingstone, Tansley, Davis. Class III.—Scriver and Weldon, equal; Dewar; Rochester and Wells, equal.

# HEATING AND VENTILATION OF BUILDINGS.

Fourth Year.—Class I.—Congleton, Maxwell, O'Halloran, Macfarlane. Class II.—Hall; Langstroth and Winslow, equal; Mooney,

Wilkins, Smith (D. W.), Class III.—Ward, Wilson (J. K.); Darant and Goodman, equal; Jenekes.

### HYDRAULICS.

Fourth and Third Years.—Class I.—Anderson, Jackson, Canning, Congleton, Maxwell; Louttit and Phelan, equal; McTaggart; Gliddon and Vineberg, equal; Woolward, Lorin, Sloves. Class II.—Fellows and O'Halloran, equal; Bishop (T. A. G.), Cousinean and Eaton and Langstroth and Macfarlane and McCurdy and Winslow, equal; Cartwright; Hill and Wilson (J. K.), equal; Thompson (G. M.), Mooney, Smith (D. W.); Kennedy and Murphy (A. G. S.), equal. Class III.—Bradfield, Ward, Vaughan; Eager and Spratt, equal; Mackenzie (W. B.) and Messenger and Rutherford, equal; Whelen, Macdonald (D.); Acton and Hall and Jenckes and MacKeen and Wain and Wilder, equal; Bates; Reid (E. A.) and Salamis, equal.

### HYDRAULICS AND LABORATORY (SHORT COURSE).

Fourth Year.—Class I.—Green, Jelly. Croft. Class II.—Johnston, Cockfield, Kay; Bain and Henderson and Mitchell, equal; Weldon, Calkin, Brow; Harrison and Lantz, equal; Saunders. Class III.—Cuddy; Challenger and Clark (R. G.) and Cromwell and Forbes and Fowler and Yates, equal; Lordly and Nutter, equal; Thomson (W. W.) and Warriner, equal; Cambron and Smith (R. H.), equal; Giles, Rochester, Copping; Dewar and Goodwin, equal; "Gill and Palmer, equal; Davis and Hyndman and Jordan and Livingstone and Parsons and Tansley, equal.

# HYDRAULIC MACHINES.

Fourth Year,—Class I.—Cunningham, Congleton, Gardner, Fortin, Class II.—Farmer; Hannan and Macphail, equal; O'Halloran, Maxwell, Brault, Hall. Class III.—Drewry; Macfarlane and Mooney and Watson, equal; Durant and O'Sullivan, equal; Langstroth; Robertson and Winslow, equal; Muir, Gauthier; Jenckes and Perrault and Ward, equal.

### LABOR ATORIES.

# CHEMICAL LABORATORIES.

Second Year.—(First Term.)—Class I.—Layne, Steacie; Bloomfield and Buller, equal; Faith, Cregeen, Harbert, Sherwood; Moore and Toole, equal; Horsey, Denis, Laidley; Culpeper and Whittemore, equal. Class II—Stephen, Rorke; Katz and Willis,

equal; Cross and Patterson, equal; Gamble and Hague and Oliver (J. H.) and Streadwick, equal; Bradshaw (F. W.) and Buffam and Dormer and Elkington and Mills and Woolcombe, equal; Simpson (R. L.); Binns and Champion and Finley and Jerrom and Ross and Tallon, equal; Ambridge and Armstrong and Brisbane, equal; Livingstone and Munro (D. J.) and Taschereau, equal; McLagan and Raginsky, equal; McKindsey and Peters and Plow and Shier and Stirling, equal. Class III. Carpenter and Smith (A. W. S.), equal; Bishop (E. G.) and Cox and Gilbert and Taylor and Webster, equal; Gegg; Budden and Downs and Evans, equal; Antliff and Munn and Reeve and Smallhorn, equal; Friedman and Mitchell, equal; Davidson and Dickinson and Foss (D. B.) and Holcomb and LeBaron and Reaper and Winter, equal; Bishop (J. G.) and Oliver (C. J.) and Scott (L. J.) and Wylde, equal; Caldwell and Hamel, equal; McCaw; Desloover and O'Heir and Owens, equal.

(Second Term.)-Class 1.-Kennedy, Matheson, Radley; Gordon and Macnaughton and Smith (R. M.) and Wood and Yorston, equal; Crain and Turnbull, equal; MacLaren (A. R.); Blackall and Cooper and Jones, equal; Grant. Class II.-Griffith; Eadie and Malone, equal; Connell and Finlayson and Jackson and Lawrence and Rochester, equal; Graham and Powell (A. T.), equal; Brough and Read (D. E.), equal; Foster and Timmis, equal; Allan and Dalrymple and Davis (W. W.) and Powell (F. E.), equal; Bradshaw (G. R.); Roquet and Terrance, equal; Chisholm and Lemicux, equal; Abbott-Smith and Legg and Moran and Raskin and Stone, equal; Morin and Smith (A. E.), equal; Cuttle and Davies (C. B.) and Scott (J. M.), equal; DeSalaberry and Fagan and Gaudet and Harling and Velasco, equal. Class III.—Kezar and Simpson (J. C.), equal; Goldberg and Pelletier, equal; Desbarats and Holden and Johnson and Kingan and McCracken and White, equal: Craik; Cleveland and Dupuis and Kingsmill, equal; Clark and Maclaren (A. B.), equal; Hamilton and Macnutt, equal; Currier; Bleau and Lea and Rhind, equal; Sherrard; Brummel and Patton, equal.

# CHEMICAL LABORATORY (INORGANIC LABORATORY).

Fourth Year.—Class I.—Johnston, Yates. Class II.—Hyndman, Kay, Calkin, Copping. Class III.—Giles, Forbes; Challenger and Purcell, equal.

CHEMICAL LABORATORY (INORGANIC QUALITATIVE ANALYSIS).

Third Year.—Class I.—Weldon, Nesbitt, Wightman. Class II.—Macdonald; Bissell and Hastings and Porritt, equal; Wilson (J.

M.); Carlyle and Ross (C. G.), equal; Davis (S. H.). Class III.—None.

CHEMICAL LABORATORY (INORGANIC QUANTITATIVE ANALYSIS).

- Fourth Year.—(Metallurgical Engineering Course.)—Class 1.—Clark (R. G.). Class 11.—Fowler, Harrison, Nutter. Class 111.—Iordan.
- Third Year.—(Chemical Engineering and Chemistry Courses.)—Class I.—Grant; Binmore and Carson and Macnaughton, equal. Class II.—Munro (W. C.); Ahern (A. W.) and Chorney and Farquharson and Loebel and Schleifstein and Tatley and Taylor (J. E.), equal; Brown (G. B.) and Fraser, equal. Class III.—Brooks and Drummond and Wright, equal; Bethune and Clarke (L. W.) and Crane and McEvoy and Ross (J. H. D.) and Stockwell and Woodward, equal; Boronow and Gooch, equal.
- (Metallurgical Engineering Course.)—Class I.—None. Class II.—Me-Clelland, Duff, McCallum. Class III.—Humes and Kyle and Peyzner and Scott, equal; Buchanan and Godard and Hamilton and Morrison and Murphy (E. J.) and Wait, equal.

# CHEMICAL LABORATORY (ORGANIC).

- Foorth Year.—Class 1.—Green: Croft and Mitchell (F. L.), equal.

  Class 11.—Lordly and Timmerman and Thomson (W. W.),
  equal: McIntyre, Lantz, Cambron, Cuddy, Jelly, Smith (R. H.).

  Class 111.—Cockfield, Goodwin; Irving and Stroud, equal;
  Warriner, Cohen.
- Third Year.—Class 1.—Macnaughton; Binmore and Grant, equal; Munro (W. C.). Class II.—Gunton; Carson and Farquharson, equal; Brooks, Taylor (J. E.), Loebel, Tatley, Ross (J. H. D.). Class III.—Cloutier; Fraser and Midgley, equal; Clarke (I. W.); Gooch and Gurman, equal; Ahern (A. W.) and Boronow, equal; Drummond, Schleifstein; Crane and Stockwell, equal; Mitchell (J. M.) and Wright, equal; Bethnne and Brown (G. B.) and McEvoy and Woodward, equal.

## ELECTRICAL ENGINEERING LABORATORY.

- Fourth Year—(Electrical Engineering Course.)—Class I.—Anderson, Louttit, Gliddon, Jackson, Canning. Class II.—Fellows, Vineberg, Bishop, Sloves, Thompson (G. M.), Eaton, Hill, Vaughan, Whelan. Class III.—Macdonald, Acton, Salamis, Phelan.
- Fourth and Third Years.—Class I.—Harris, Macphail; Harrison and Lantz and O'Sullivan, equal; Brault and Davis, equal; Kay and Lordly, equal. Class II.—Green and Potter and Smith (R. II.), equal; Fortin; Copping and Clark (G. S.) and Fowler

and Gauthier and Hyndman and Jelly and Robertson (A. M.) and Weldon, equal; Biggar and Gardner and Perrault and Watson, equal; Challenger and Croft and Dewar, equal; Tansley, Warriner; Bastable and Forbes and Giles and Loy and Purcell, equal; Goodwin; Brow and Muir, equal; Calkin and Mitchell (F. L.), equal; Irving and McIntyre, equal; Nutter; Foss (R. H.) and Johnston (H. W.) and Morrisette and Stroud, equal; Clark (R. G.) and Cockfield and Farmer, equal. Class III.—Black and Ford and Hannan and Holt and Hulburd and MacLennan and Rochester and Scriver and Wilson (S. H.), equal; Jandrew; Evans and Notman, equal; Cambron and Clossey and Coughlan and Drewry and Fry and Ramsey, equal; Cuddy and Holmes and Wilson (H. A.), equal; Cunningham and Yates, equal; Roberton, MacGregor, Johnson, Abbott-Smith; Jordan and Macrae, equal; Elliott and MacNider, equal; Kirsch; Crawford and Ferguson and Taylor (E. P.) and Tucker, equal.

Third Year.— (Electrical Engineering Course.)—Class I.—Bush, Mott, Desbarats, Banfill; Mitchell (R. J.) and Handy, equal. Class II.—Benett, Taber, Gordon, Clarke (E. L.), Bonneville, Wonliam, Armstrong, McDougall, Anderson, Paddon. Class III.—Russell, King, Glen, Kerr, Parker, Brown (E. V.), Simons, Ahern (P. C. B.).

## ELECTRO-METALLURGY LABORATORY.

Fourth Year.—Class I.—Nutter. Class II.—Fowler; Clossey and Henderson, equal; Clark (R. G.) and Harrison and Jordan, equal. Class III.—Harris.

## GEODETIC LABORATORY.

Fourth Year.—Macphail, Cunningham. Class II.—Brault and Hannan, equal; Fortin; Drewry and Gardner and Loy and O'Sullivan, equal; Robertson; Muir and Watson, equal; Gauthier, Perrault, Farmer. Class III.—Ferguson.

## HYDRAULICS LABORATORY,

Fourth and Third Years.—Class I.—Congleton; Canning and Louttit. equal; Phelan, Gliddon, McCurdy, Anderson. Class II.—Macfarlane and Maxwell and Vineberg, equal; Langstroth and O'Halloran, equal; Eaton and Winslow, equal; Sloves and Thompson (G. M.). equal; Vaughan, Hill, Fellows, McTaggart, Mooney; Acton and Jackson, equal; Cousineau and Ward and Wilson (J. K.), equal; Wilder, Woolward. Class III.—Murphy (A. G. S.) and Salamis, equal; Lorin; Macdonald (D.)

and Wain and Whelen, equal; Bishop (T. A. G.); Kennedy and Messenger and Thompson (C. E.), equal; Hall, Bates; Cartwright and Smith (D. W.) and Wilkins, equal; Bradfield, Spratt; Durant and Eager and Mackeen and Reed (G.) and Reid (E. A.), equal; Jenekes; Fisk and Rutherford, equal; Delaney and Martin and Quinlan and Salter, equal.

## MECHANICAL ENGINEERING LABORATORY,

- Fourth Year.—Class I.—Congleton, Maxwell, O'Halloran; Langstroth and Winslow, equal. Class II.—Hall and Macfarlane, equal; Mooney, Ward, Durant. Class III.—Jenckes, Wilkins, Wilson (J. K.), Smith (D. W.).
- Third Year.—(General Course.)—Class I.—Harris, Weldon; Biggar and Munro (W. C.), equal; Clark (G. S.); Bastable and Hamilton and Tatley, equal. Class II.—Crawford and Spratt, equal; Cousinean; Holt and McTaggart, equal; Brooks, Wright, Notman: Gooch and Morrisette, equal; MacNider, Ford; Bissell and Peyrner, equal; Grant and Lorin and Ramsey and Read (E. A.) and Roberton, equal; Cartwright and Holmes and Jandrew and Kyle and Machaughton, equal. Class III.—Fry and Hastings and Humes and Messenger, equal; Ahern (A. W.) and Carlyle and Clarke (1. W.), equal; Foss and Potter, equal; Fisk and Godard and Macdonald and Nesbitt and Wain, equal; Macrae and Porritt and Rutherford, equal; Duff and Eager and Mackenzie (D. G.) and McLennan, equal; Bates and Bradfield and Elliot and Ross (J. H. D.) and Thompson, equal; Black and Carson and Wilson (J. M.), equal; Cloutier and Hamel, equal; Brown (G. B.) and Coughlan and Fraser, equal; MacGregor and Patterson, equal; Crane and Martin, equal; Drummond and Farquharson and Hulburd and Mackenzie (G. H.) and Murphy (A. G. S.) and Scott and Wait and Wilder and Wilson (II. A.), equal; Evans and Loebel and Woodward and Woodward, equal.
- Third Year, -(Flectrical Engineering Course.)—Class L.—Desbarats, Brish, Paddon, Handy, Mitchell (R. J.), Russel. Class II.—Clarke (E. L.), Mott, Banfill; Anderson and Brown (E. V.), equal; Bonneville, Taber; Gordon and Kerr and Simons, equal. Class III.—Glenn and King, equal; McDougall; Parker and Wonham, equal; Benett, Armstrong.

## METALLURGICAL LABORATORY (THESIS).

Fourth Year.—Class I.—Fowler and Harrison, equal; Clark (R. G.) and Jordan and Nutter, equal. Class II.—None. Class III.—Closey and Henderson, equal.

## ORE DRESSING LABORATORY.

Fourth Year.—Class I.—Dewar; Clarke and Palmer and Saunders, equal; Brow and Weldon, equal. Class II.—Davis and Mawdsley and Nutter, equal; Fowler and Livingstone, equal; Bain and Gill and Harrison, equal; Cromwell and Henderson and Tansley, equal; Jordan; Clossey and Rochester and Wells, equal. Class III.—Seriver.

### PHYSICAL LABORATORY.

Fourth Year.—Class I.—Anderson and Louttit, equal; Gliddon, Hill,
Jackson; Acton and Bishop (T. A. G.) and Eaton, equal. Class
II.—Fellows and Macdonald (D.), equal; Canning and Vaughan,
equal; Vineberg, Thompson (G. M.), Salamis, Kennedy, Whelen,
Class III.—None.

Second Year .- Class I .- Layne, Moore. Woollcombe; Downs and Steacie, equal. Class II.—Bloomfield; Gordon and Oliver (J. H.). equal; Culpeper and Moran, equal; Binns and Matheson and Smith (R. M.), equal; Bradshaw (G. R.) and Buller and Munro (D. J.), equal; Abbott-Smith and Brisbane and Elkington and Kennedy and Pelletier and Toole, equal; Timmis; Cregeen and Finley and Gamble and Jackson and Powell (A. T.) and Whittemore and Wood and Yorston, equal; Eadie and Faith and Graham and Harbert and Legg and Radley and Read (D. E.), equal; Cooper (P.E.) and Evans and Lawrence and Malone and Rochester and Stephen, equal; Bieler and Buffam and Chisholm and Sherwood and Stone and Tallon and Taylor and Terrance, equal; Antliff and Johnson and Laidley, equal; Fleming and Gaudet and Horsey and MacLaren (A. R.) and Raskin and Turnbull, equal; Ambridge and Brough and Carpenter and Scott (J. M.) and Shier and Webster, equal. Class III.—Dalrymple and Dickinson and Jones and Kezar and Kingsmill and McCracken and McMeans and Plow and Reid (H. E.) and Ross, equal; Armstrong and Bleau and Connell and Crain and Desbarats and Foss (D. B.) and Hague and Jerrom and Oliver (C. J.), equal; Allan and Bishop (E. G.) and Brumell and Cuttle and Davies (C. B.), equal; Caldwell and Currier and Davis (W. W.) and Denis (B. T.) and Dormer and Grant and Katz and Livingstone and Powell (F. E.) and Raginsky and Reaper and Smith (A. E.), equal; Budden and LeBaron and Mitchell and Rorke and Snyder, equal; Cleveland and Dupuis and Gegg and McKindsey and Owens and Smith (A. W. S.), equal; Peters and Streadwick, equal; Fagan and Foss (L. J.) and Griffith and Mulligan and Patterson and White, equal; McLagan and McNaughton and Munn and Munro (G. H.), equal; Bradshaw (F. W.) and Holden and Lea and Smallhorn and Spriggs, equal; Champion and Finlayson and Maclaren (A. B.) and Macnutt and Mills and Simpson (J. C.), equal; Clark and Mallison, equal; Craik and Foster and Harling and Kingan and Lemieux and Morin and Velasco and Willis and Winter and Wylde, equal; Davidson and Gilbert and Hamilton and McDonald (S. J.) and Patton and Renout, equal; Baillie and Blackall and Brodeur (J. C.) and Cross and McCaw and O'Heir and Parsons and Scott (L. J.) and Simpson (R. L.) and Taschereau, equal.

First Year.—Class I.—Atkinson, Cochran; Benjamin and Lanctot and Shlakman, equal; Howes and Stewart (D. L.), equal; McCall and Phipps, equal; Pringle; Delcellier and Dick and Mercier, equal; Shaw (G. E.); Hayes and Trenholme, equal. Class II.-Becking and Muir and Rudenko and Shatford, equal; Fairbairn and Goldstein and James and Logan and Warren (F. B.), equal; Davidson and Ree and Snyder, equal; Finlayson (A. W.) and Finlayson (S. M.) and Lane and Matheson (G. L.), equal; Darling and Gray and Weisburgh, equal; Heyman and Higgerty and Paterson and Wilson (H.), equal; Buchanan; Archer and Bryant and Malone and Manson and Munro (W. D.), equal; Buzzell and Conture and Ferguson and Mitchell and Wilson (G.), equal; Buraschi and Campbell and Gillett and Simmonds and Winter, equal; Ashby and Braithwaite (E. E.) and Bray and Goodall and Kirschberg and Naismith, equal; Allcorn and Barnes and Burroughs and Douglas and Malkevitch and McMaster and Miller (A. P.) and Nutting and Rumpel, equal; Cooper and Harris and Luxton and Nixon and Pollock and Macnab (A. G.), equal; Dion and Moore and Rochester and Roy, equal. Class ///.- MacGillis and Racey, equal; Foy and MacNab (A. H.) and Smith, equal; Bailey (L. W.) and Forbes and Freedman and Morrin, equal; Poulin; Finley and Holland and Kent and Miller (A. J.) and Timmins and White (C. P.) and White (W. J.) and Woolsey, equal; Meikle, Donohue; Andrews and Brophy and Cornell, equal; Farrell and Giles and Ogllvy, equal: McDonald (H. R.) and Panneton (J. S.) and Robinson and Williamson, equal; Stockwell; Boyd and Braithwaite (J. Y. W.) and Matheson (G.W.) and McGregor and Taylor and Wardrope, equal; But'er and Vernot, equal; Addie and Anderson and Butler (E. W. R.) and Donnelly and Martin and Stewart (H M), equa!.

### SER NOTH OF MATERIALS LAB RATORY.

Third Verr. (lass I --Biggar, Mott, Russel, McTaggart, Farquharson; Brooks and Holt and Murphy (A. G. S.), equal. Class II.— Bastable and Lorin and Reid (E. A.) and Weldon and Wool-

ward, equal; Bonneville and Thompson, equal; Brown (E. V.) and Mitchell (R. J.), equal; Carlyle and Clarke (1. W.) and Wain, equal; Bush and Clarke (E. L.) and Gordon and Handy and Hastings and Morrissette and Parker, equal; Black and Desbarats and Duff and Godard and King, equal; Anderson and Bissell and Clark (G. S.) and Fisk and Jandrew and Reed (G.) and Ross (J. H. D.) and Rutherford, equal; Armstrong and Bates and Paddon and Taber, equal; Bradfield and Cartwright and Crawford and Kerr and Wilson (H. A.), equal; Evans and Grant and Harris and Notman and Taylor (E. P.), equal; Ford and Pevzner, equal; Ahern (A. W.) and Macnaughton and Tatley, equal; Carson and Fraser and Gooch and Holmes and Humes and Mackeen and McLennan and Wightman and Wilder and Woodward, equal; Foss and Fry and Glen and Mc-Clelland and McEvoy and Nesbitt and Potter, equal; MacGregor and Mackenzie (D. G.) and Messenger, equal. Class III.-Crane and Eager and MacNider and Macrae and Porritt, equal; Elliott; Banfill and Boronow and Kyle and Mackenzie (G. H.) and Spratt, equal; McDougall and Patterson, equal; Ahern (P. C. B.) and Cloutier and Coughlan, equal; Johnson and Mackenzie (W. B.) and Wilson (J. M.), equal; Gurman and Loebe! and Morrison and Ross (C. G.) and Salter, equal; Martin; Consineau and Roberton and Scott, equal; Hulburd and Mitchell (J. M.), equal; Shotwell; Benett and Davis and Ramsey and Root, equal; Simons, Wonham; Hamilton and Macdonald and Reiffenstein and Stockwell and Wright, equal.

### MACHINE DESIGN.

- Fourth Year.—(Electrical Engineering Course). Class I.— Fellows, Sloves, Canning, Phelan; Anderson and Hill and Thompson (G. M.) and Vineberg, equal; Jackson and Louttit, equal. Class III.—Macdonald, Eaton, Bishop, Kennedy. Class III.—Acton and Salamis and Whelen, equal.
- Fourth Year (Mechanical Engineering Course).—Class I. Congleton, Winslow, Gliddon. Class II.—O'Halloran, Langstroth. Class III.—Macfarlane, Wilson (J. K.); Durant and Wilkins, equal; Jenckes and Maxwell, equal; Hall and Mooney and Smith (D. W.), equal.
- Third Ycar.—Class I.—Mott; Biggar and Clark (G. S.), equal; Desbarats, Handy. Class II. Morrissette; Crawford and Taber, equal; Bonneville; Bastable and Kerr, equal; McLennan. Class III. Bush and Paddon, equal; Wilson (H. A.); Brown (E. V.) and Evans, equal; Mitchell (R. J.); Ford and Macrae, equal; Jandrew, Ahern (P. C. B.), Clarke (E. L.); Foss and Mac-

Nider and Wonham, equal; Armstrong and Gordon, equal; Anderson and Holmes and Holt and Ramsey and Russel, equal.

## MANUFACTURING PLANT DESIGN.

Fourth Year. — Class I. — None. Class II. — Smith (D. W.). Class III. — None.

## MAP PROJECTIONS.

Third Year. — Class I. — Bates, Lorin, McTaggart; Cartwright and Eager and Wilder, equal; Cousineau and Messenger and Woolward, equal. Class II.—Mackenzie (W. B.), Bradfield, Fisk, Quinlan. Class III. — Spratt; Murphy (A. G. S.) and Thompson (C. E.), equal; Martin; Reed (G.) and Wain, equal; Rutherford, Reid (E. A.); Delaney and MacKeen, equal.

## MAPPING

Second Year. - Class I.-Moore, McNaughton; Chisholm and Kennedy and Kingan, equal; Culpeper and Legg and Sherwood and Toole: equal; Gilbert and Kezar and Wood, equal; Cooper (P. E.) and Powell (A. T.) and Smith (A.E.), equal; Layne and Rorke and Willis, equal; Cregeen and Eadie and Radley, equal; Cooper (H. C. D.) and Crain and Faith and LeBaron and Oliver (J. H.) and Plow and Terrance and Turnbull, equal. Class II.-Brumell; Brisbane and Champion and Connell and Cuttle and Matheson and Munro (G. H.) and Oliver (C. J.) and Reaper and Stephen, equal; Buffam and Jerrom and Johnson and Laidley and Maclaren (A. B.) and Wilson, equal; Allan and Gordon and Harbert and Jackson and MacLaren (A. R.) and Streadwick, equal; Dickinson and Peters and Shier and Velasco, equal; Armstrong and Cross and Hamilton and Macnutt and McMeans and Smith (R. M.) and Webster, equal; Bieler and Downs and Munro (D. J.) and Raginsky and Reid (H. E.), equal; Caldwell and Finlayson and Finley and McKindsey and Rhind and Tallon and White, equal; Binns and Bradshaw (F. W.) and Davies (C. B.) and Rochester and Yorston, equal; Budden and Foster and Holden and Simpson (R. L.) and Wylde, equal; Foss (D. B.); Carpenter and Davis (W. W.) and Dupuis and Fagan and Graham and Grant and Livingstone and McCaw and McCracken and Read (D. E.) and Whittemore, equal; Ambridge and Brough and Desloover and Horsey and Patton and Scott (J. M.) and Spriggs and Timmis, equal; Dalrymple and Gaudet and Goldberg and Katz and Mills and Moran and Roquet and Smallhorn and Snyder and Taylor, equal; Abbott-Smith and Bishop (E. G.) and Cope and Craik and Dormer and Gamble and Lawrence and Morin and O'Heir and Pelletier, equal. Class III.—Buller and Currier and Mitchell and Raskin and Sherrard, equal; Bloomfield and Bouillon and Evans and Mulligan and Powell (F. E.) and Steacie, equal; Bishop (J. G.) and Blackall and Bradshaw (G. R.) and DeSalaberry and Gegg and McLagan and Ross and Scott (L. J.) and Simpson (J. C.), equal; Fleming and Griffith and Lea and Stone, equal; Brodeur (J. P.) and Elkington and Mallison and Patterson and Winter, equal; Davidson and Desbarats and Jones and Macduff and Malone and Renouf, equal; Amos and Cox and Foss (L. J.) and Leitch and Woollcombe, equal; Stirling; Denis (B. T.) and Hague and McLeod and McDonald, equal; Baillie and Lemieux and Parsons and Smith (A. W. S.), equal; Cleveland and Harling and Taschereau, equal; Antliff and Kingsmill, equal; Bleau and Brodeur (J. C.) and Clark and Owens and Stethem, equal.

## MATERIALS OF CONSTRUCTION.

Second Year. - Class I. - Buller, Layne, Radley, Webster, Harbert; Moore and Smith (R. M.), equal; Bloomfield and Faith, equal; Culpeper and Desloover, equal; Yorston; Kennedy and Toole, equal; Cregeen and Turnbull and Wood, equal; Abbott-Smith and Oliver (J. H.) and Sherwood, equal. Class II.—Bieler; Blackal! and Connell and Finlayson and Pelletier, equal; Legg and Simpson (R. L.), equal; Read (D. E.) and Steacie, equal; Cuttle and Rhind, equal; Armstrong and Jones and Matheson and Powell (A. T.), equal; Graham and Ross and Woollcombe, equal; Stephen; Kezar and Peters and Scott (J. McD.), equal; Horsey and Plow and Tailon, equal; McCaw and Raskin, equal; Antliff and Chisholm and Dickinson and Hague and Taschereau and Willis, equal; Gamble and Gordon and O'Heir and Timmis, equal; Gilbert and Grant and McKindsey and Mills and Rochester, equal. Class III.-Allan and Ambridge and Malone and Terrance equal; Brumell and Davidson and Davies (C. B.) and Johnson and Laidley and Smith (A. W. S.), equal; Bradshaw (G. R.) and Gunton and Mitchell, equal; Craik and Desbarats and Jackson and McNaughton and Owens and Patton and Rorks, equal; Foss (L. J.) and Gegg and Patterson and Stone, equal; McLagan and Stirling and Taylor, equal; Carpenter and Munro (D. J.) and Oliver (C. J.). equal; Kingsmill and LeBaron and Lee, equal; Cox and Denis and Foss (D. B.) and Winter, equal; DeSalaberry and Griffith and Fagan, equal; Binns and Cross and Finley and Friedman and Snyder, equal; Bishop (E. G.) and Reid (H. E.) and Roquet, equal; Livingstone and Powell (F. E.) and Shier and Simpson (J. C.) and Streadwick, equal; Cleveland and Dalrymple and Downs and Evans and Kingan and Lawrence and McLaren (A. B.) and Whittemore, equal; Buffam and Crain and Elkington and McNutt and Smallhorn, equal.

## MATHEMATICS.

### ALGEBRA.

First Year.—Class I.—Shaw (G. E.), Manson, Howes; Atkinson and Rochester, equal: Barnes and Shlakman and Warren (F. B.), equal; Becking and Darling, equal; Delcellier and Lanctot, equal. Class II.—Kent, James; Burroughs and Malone, equal; Stewart (D. L.), Mercier, Ogilvy; Archer and Ferguson and Phipps, equal; Benjamin and Goodal! and Paterson, equal; Cochran and Dion and Freedman and Higgerty and Holland and Kirschberg and Logan and McCall and Rudenko and Snyder, equal. Class III. -Finlayson (S.M.), Miller (A.P.); Douglas and Moore and Ree and Timmins, equal; Farmer and Farrell, equal; Malkevitch, Muir; Fairbairn and Matheson (G. L.) and Mitchell and Naismith and Rumpel and Wilson (G.), equal; Buchanan and Buzzell and Luxton and Pringle and Weisberg, equal; Bray and Schlee and Stockwell and Taylor and Trenholme, equal; Campbell and Finlayson (A. W.) and Giles and Goldstein and Mc-Laren and Nutting, equal; Bailey (L.W.) and Consiglio and Cope and Couture and Davidson and Dick and Lane and MacGillis and McMaster and McNab (A. H.) and Robinson and White (C. P.), equal; Braithwaite (E. E.) and Williamson, equal; Addie and Ashby and Cornell and Donohue and Gravel and Hayes and Meikle and Wilson (11.), equal; Anderson and Andrews and Brown and Butler (E. W.) and Draper and Findlay and Forbes and Foy and Gray and Heyman and Johnson and Lawrence and McDonald (H. R.) and Minro and Nixon and Olive and Panneton (1, 1,) and Robertson and Warren (W. A.) and Whittal and Winter and Woolsey, equal.

## ANALYTIC GLOMETRY.

Second Year,—Class I.—Harbert and Kennedy, equal; Moore, Yorston; Buller and Culpeper and Layne, equal; Oliver (J. H.), Bleau; Buffam and Craik and Ross and Smith (A. E.) and Webster, equal. (lass II.—Read (D. E.); Crain and Gordon and Simpson (R. L.) and Smith (R. M.), equal; Ambridge; Binns and McKindsey, equal; Laidley; Allan and Mills and Munro (D. J.), equal; McNaughton; Eadie and Rochester and Toole and Turnbull, equal; Bishop (E. G.) and Bishop (J. G.) and Bloomfield and Cregeen and Gegg and Legg, equal; Caldwell and Steacie

and Tallon and Wood, equal; Armstrong and Dormer and Downs and Lea, equal. Class III .- Blackall and Denis and Moran (T. M.) and Stephen and Terrance and Willis, equal; Brough and Davies (C. B.) and Lawrence and MacLaren (A. R.) and Roquet, equal; Peters; Desloover and Fagan and Faith and Finlayson and Foss (D. B.) and Reid (H. E.) and Velasco, equal; Jones and Rorke, equal; Davidson and McLagan and Pelletier and Radley and Sherwood and Stethem, equal; Brodeur (J. C.) and Brodeur (J. P.) and Carpenter and Chisholm and Smallhorn, equal; Brisbane and Cooper and Finley and Livingstone and Matheson and Wylde, equal; Connell and Simpson (J. C.) and Whittemore, equal; Johnson and McCracken and Patton and Powell (A. T.), equal; DeSalaberry and Graham and Grant and Scott (L. J.) and Taschereau, equal; Gilbert and LeBaron and Parsons and Raskin, equal; Cross and Desparats and Morin and White, equal; Abbott-Smith and Currier and Dickinson and Dupuis and Fleming and Foss (L. J.) and Gaudet and Goldberg and Griffith and Hamilton and Harling and Holden and Jenks and Jerrom and Katz and Kezar and Macnutt and Malone and Owens and Powell (F. E.) and Renoui and Streadwick and Taylor, equal.

## CALCULUS.

Third Year.—Class I.—Bonneville, Mott, McDougall, Bush, Taber.

Class II.—Biggar and Brown (E. V.), equal; Armstrong and
Wonham, equal; Kerr, Clark (E. L.). Class III.—Banfill and
Paddon, equal; Gordon; Ahern (P. C.) and Russel, equal;
Mitchell (R. J.); Desbarats and Glen, equal; Parker.

Second Year.-Class I.-Culpeper, Harbert, Kennedy, Moore; Laidley and Yorston, equal; Davies, (C. B.); Layne and Oliver (J. H.) and Webster, equal; Bloomfield and Buller and Connell and McNaughton and Steacie, equal; Johnson; Ambridge and Munro (D. J.) and Rochester and Stephen, equal. Class II. - Patton; Budden and Gaudet and Gegg and Gordon and Sherwood and Simpson (R. L.), equal; Cox and Moran (T. M.) and Woollcombe, equal; Denis and Matheson, equal; Jones and Ross and Smith (A. E.), equal; Bleau and Tallon and Turnbull, equal; Crain and Desloover and Eadie and Finley and Wood, equal; Blackall and Brumell and Desbarats and Dupuis and Mitchell and Rorke, equal; Brodeur (J. C.) and Griffith, equal; Bishop (J. G.) and Craik and Smith (R. M.) and Stethem, equal; Mc-Lagan and Velasco, equal; Dalrymple and Finlayson and Hague and Terrance, equal; Grant and McKindsey and Radley, equal; Brough and Gilbert and Katz and Peters and Smith (A. W. S.). equal; Champion and Cregeen and Horsey and Livingstone and

Toole, equal. Class III.—Spriggs; Faith and Goldberg and Jackson and Kingsmill and McCracken and Powell (A. T.) and Taschereau, equal; Binns and Downs and Gamble and Graham and MacLaren (A. R.) and Scott (L. J.), equal; Mills and Patterson and Scott (J. M.) and Willis, equal; Abbott-Smith and Bishop (E. G.) and Carpenter and Cooper (P. E.) and Hamilton, equal; Brisbane and Buffam and Cuttle and Dormer and Fagan and Kezar, equal; Allan and Caldwell and Chisholm and Read (D. E.) and White and Whittemore, equal; DeSalaberry and Holden and Simpson (J. C.), equal; LeBaron and Sherrard, equal; Cleveland and Davis (W. W.) and Timmis, equal; Brodeur (J. P.) and Cross and Munro (G. H.) and Reid (H. E.), equal; Bradshaw (G. R.) and Davidson and Dincen and MacLaren (A. B.) and Oliver (C. J.), equal; Armstrong and Bieler and Elkington and Holcomb and Lea and Lemieux and Malone and Roquet, equal; Foster and Macnutt and Raskin, equal; Dickinson and Fleming and Foss (D.B.) and Foss (L. I.) and Fotheringham and Jenks and Legg and Mc-Caw and Powell (F. E.) and Wylde, equal.

## GEOMETRY.

First Year.-Class I.-Atkinson, Shaw (G. E.), Wilson (G.), Cochran; Delcellier and Howes and Kent and Lanctot and McCall, equal. Class II.-Mercier, Matheson (G. L.); Freedman and Miller (A. P.), equal; Archer and Higgerty and Phipps and Rochester, equal; Dick: Becking and Fairbairn and Snyder and White (C. P.), equal; Stewart (D. L.); Douglas and Farrell, equal: Burroughs and Dion and Goodall and Shatford and Stockwell, equal; Ashby and Donohue and Miller (A. J.) and Ogilvy, equal; Darling and Holland and Lane and Morrin, equal. Class III.-Heyman and Paterson (A. P.), equal; Braithwaite (E. E.) and Logan and Luxton and Mitchell, equal; Brown (C. B.) and Buzzell and Findlay and Finlayson (S. M.) and Kirschberg and McNab (A. H.) and Pringle and Woolsey, equal; Benjamin and Boyd and Gravel and James and Murray, equal; Malone and Warren (F. B.), equal; Donnelly and Panneton (J. S.) and Shlakman, equal; Farmer and Finlayson (A. W.) and LeMay and Steinberg and Thompson, equal; Johnson and Nutting, equal; Addie and Butler (B. M.) and Butler (E. W.) and Giles and Gillett and Moore and Simmonds and Winter, equal; Bryant and Campbell and Cornell and Hayes and Mac-Gilles, equal; Buraschi and Lawrence and MacNab (A. G.) and Schlee, equal; Bailey (L. W.) and McCarthy and Racey, equal; Barnes and Forbes and Malkevitch and MacGregor and Trenholme, equal; Allcorn and Anderson and Andrews and Bouchard and Brathwaite (J. Y.) and Buchanan and Cooper and Cope and Cram and Ferguson and Foy and Goldstein and Gray and Harris and Kruger and McDonald (H.R.) and McLaren and Muir and Munro and Naismith and Panneton (J. J.) and Ree and Rudenko and Rumpel and Seale and Smith and Starke and Stewart (H. M.) and Taylor and Timmins and Vernot and Warren (W. A.) and Weisburgh and Whitehead and Whittall and Williamson and Wilson (H.), equal.

#### MECHANICS.

Third Year.—Class I.—Bonneville and Clarke (E. L.) and Mott, equal; McDongall and Wonham, equal; Lorin; Biggar and Kerr and Taber, equal. Class II.—Woolward, Morrissette; Eager and McTaggart, equal; Holt, McGregor; Bradfield and Bush and Mitchell and Murphy (A. G. S.), equal; Foss; Ford and Holmes, equal. Class III.—Desbarats and Paddon and Spratt, equal; Evans; Crawford and Handy and McLennan, equal; Fry; Messenger and Wain, equal; Bates and Brown (E. V.), equal; Clark (G. S.) and Johnson and Potter, equal; Martin, Gordon; Cartwright and Jandrew and Kirsh and Ramsey and Wilson (S. H.), equal; Russell, Armstrong, Elliot and Macrae and Notman and Roberton and Simons, equal.

Second Year.-Class I.-Kennedy, Webster, Moore. Radley, Yorston, Wood; Culpeper and Read (D. E.), equal. Class II.—Layne; Matheson and Steacie, equal; Bloomfield and Johnson and Smith (A. E.), equal; Munro (D. J.); Cregeen and McNaughton, equal; Buller and Eadie and Gordon, equal; Blackall and Harbert and McKindsey and Raskin, equal; Sherwood; MacLaren (A. R.) and Malone and Ross and Stephen and Woollcombe. equal; Smith (R. M.); Crain and Finley and Grant and Kezar and McCaw, equal. Class III.-Patton and Simpson (R. L.) and Timmis, equal; Allan and Budden, equal; Ambridge and Binns and Scott (J. M.) and Smallhorn, equal; Brough and Dalrymple and Davies (C. B.) and Reid (H. E.) and Rochester and Turnbull, equal; Horsey and McLagan and Tallon and Toole, equal; Abbott-Smith and Brumell and Desloover and McClelland, equal; Armstrong and Connell and Craik and Hague and Powell (A. T.), equal; Chisholm and Lea and Owens and Rorke, equal: Desbarats and Downs and Friedman and Gaudet and Graham and Jenks and Moran and Oliver (J. H.) and Stethem, equal; Faith and Gegg and Laidley, equal; Dormer and Foster and Legg and Mills and Pelletier and Peters and Roquet and Stirling and Taschereau and Terrance, equal; Brodeur (J. C.) and Cuttle and Finlayson, equal; Bieler and Bradshaw (G. R.) and Champion and Denis and Foss (D. B.)

and Gamble and Griffith and Lawrence and LeBaron and Scott (L. J.) and Shier and Simpson (J. C.) and Spriggs and Streadwick and Whittemore and Wylde, equal; Bishop (E. G.) and Caldwell and Davis (W. W.) and Holden and Jackson and Jones and Katz and Kingan and Morin and Patterson and Powell (F. E.) and Smith (A. W. S.) and Taylor and Velasco, equal.

First Year,-Class I.-Atkinson, Shaw (G. E.); Howes and Rochester, equal; McCall; Lanctot and Mercier, equal; Miller (A. P.) and Shlakman, equal: Muir, Goodall, Dick, Consiglio and Maikevitch, equal. Class II.—Finlayson (A. W.); Benjamin and Kirschberg and Luxton, equal; Archer and Cochran and Darling, equal; Ferguson, Matheson (G. L.); Becking and Higgerty, equal; Buchanan and Delcellier and Finlayson (S. M.) and Stewart (1), L.) and Warren (F. B.), equal; Paterson and Phipps and Pringle, equal; Farrell; Donohue and Gravel and Lane and Manson, equal; Ashby and Brown and Dion and Holland and Snyder, equal. Class III.—Bailey (L.W.) and Freedman and Miller (A. J.), equal; Ogilvy; Kent and Weisberg and Wilson (H.), equal; James and Pollock and Trenholme and Wilson (G.), equal; Braithwaite (E. E.) and Woolsey, equal; Fairbairn and Rumpel, equal; Cornell and Goldstein and Nutting and Simmonds, equal: Barnes and Campbell and Foy and Rudenko and Warren (W. A.), equal; Farmer and Gray, equal; Buzzell and Malone and Ree and Shatford, equal; Anderson and Davidson and Draper and Giles and Gillett and Hayes and MacGillis and MacNab (A. G.) and MacNab (A. H.) and Smith and Taylor and Timmins, equal; Bray and Douglas and Moore and Munro and Naismith and Robinson and Schlee and Wardrope and White (C. P.), equal.

## TRIGONOMETRY.

First Year.—(lass L.—Lanctot and Manson, equal; Barnes and Howes and Shaw (G.E.), equal; Atkinson; Dick and Holland and James, equal. (lass H.—Darling and Delcellier and Phipps, equal; Becking and Douglas and Snyder, equal; Benjamin and Ferguson and Higgerty and Kirschberg and Luxton and Paterson and Taylor, equal; Mercier and Muir, equal; Archer; Lane and Shlakman, equal; Finlayson (A. W.) and Kent and Malone and McCall and Rudenko and Stewart (D. L.) and Weisberg, equal; Consiglio. Class HL—Finlayson (S. M.) and Warren (F. B.), equal; Shatford; Goodall and Nutting, equal; Braithwaite (E. E.) and Bray and Burroughs and Hayes and Ogilvy, equal; Logan and Miller (A. J.) and Mitchell, equal; Davidson and Wilson (G.), equal; Pollock; Buchanan and Cochran and

Fairbairn and Malkevitch, equal; Farmer and Farrell and Miller (A. P.) and Wilson (H.), equal; Moore and Trenholme, equal; Anderson and Gillett and Gravel and Macnab (A. G.) and McLaren and McNab (A. H.) and Morrin and Munro and Pringle and Woolsey, equal; Cooper and Murphy (E. J.) and Nixon and Seale and Warren (W. A.), equal; MacGillis and Racey and Thompson and Williamson, equal; Ashby and Bailey (L. W.) and Brathwaite (J. Y.) and Butler (E. W. R.) and Buzzell and Campbell and Cope and Dion and Donohue and Forbes and Freedman and Gray and Heyman and Matheson (G. L.) and Naismith and Ree and Robinson and Rumpel and Stockwell and Timmins and Wardrope and White (C. P.) and Winter, equal.

### MECHANICAL DRAWING,

Third Year. — (Electrical Engineering Course). — Class I. — Paddon. Class II.—Banfill, Bonneville, Simons, Bush; Anderson and Taber, equal; Kerr and King and Mott, equal; Mitchell (R. J.), Wonham. Class III.—Desbarats and Glen and McDougall, equal; Clarke (E. L.); Parker and Russell, equal; Armstrong and Brown (E. V.), equal; Benett and Gordon, equal; Handy.

Third Year. — (Mechanical Engineering Course). — Class I. — Notman; Black (H. M.) and Holt, equal; Bastable. Class II.—Potter; Biggar and Roberton, equal; McLennan; Clark (G. S.) and Wilson (S. H.), equal; Morrissette; Foss and MacNider, equal; Ford and Macrae, equal; Crawford and MacGregor, equal; Holmes and Hulburd and Johnson, equal; Kirsh. Class III.—Jandrew, Ramsey, Elliot, Fry; Evans and Wilson (H. A.), equal; Tucker, Coughlan.

First Year.—Class I.—McCall and Shaw (G. E.), equal; Snyder, Buzzell, Lanetot; Howes and Torrance, equal. Class II.—Stewart (D. L.); Benjamin and Hayes and Kent, equal; Buraschi; Andrews and James and Ogilvy and Pollock, equal; Ferguson; Logan and Matheson (G. L.), equal; Darling and Pringle and Warren (F. B.), equal; Cochran and Shlakman, equal; Olive and Wilson (H.), equal; Braithwaite (E. E.) and Smith (M. K.) and Wilson (G.), equal; Farmer and Firlayson (A. W.) and Miller (A. J.) and Morrin and Trenholme, equal; Becking and Goodall and McGregor and Ridout and Wardrope, equal; Ashby; Barnes and Delce!lier and Goldstein and Harris and Malone and McNab (A. H.) and Taylor and Weisburgh, equal; Bailey (L. W.) and Couture and Lane and Mitchell and Phipps, equal. Class III. - Findlay and Finlayson (S. M.) and Kirschberg and MacGillis and Poulin and Shatford and Vernot, equal; Anderson and Forbes and Freedman, equal; Campbell and Heyman and Higgerty and Ree and Seale and Stewart (H. M.), equal; Dion and Gillett and Malkevitch and McMaster and Meikle and Muir and Starke and Woolsey, equal; Bryant and Warren (W. A.) and Williamson, equal; Mercier and Paterson, equal; Boyd and Butler (B. M.) and Gravel and Winter, equal; Cooper and Johnson and Moore and Naismith and Nutting, equal; Brown and Cornell and Manson and Matheson (G. W.), equal; Burroughs and Draper and Gray and Munro and Nixon and Panneton (J. J.) and Racey and Whittall, equal; Addie and Archer and Fairbairn and Rumpel and Simmonds and Thompson, equal; Bray and Butler (E. W. R.) and Davidson and Douglas and Foy and Giles and Lawrence and McCarthy and McLaren and Rochester, equal; Bouchard and Buchanan, equal; Farrell and Panneton (J. S.) and Timmins, equal; Brophey and Cram and Donohue and Holland and Luxton and Macnab (A. G.) and Robinson and Roy and Rudenko and Schlee, equal. Unranked.—Allcorn, Atkinson, Dick, Miller (A. P.), White (W. J.).

## MECHANICAL ENGINEERING.

Third Year .- (General Course) .- Class I .- Mott: Bush and Mc-Taggart, equal; Desbarats and Godard, equal; Carlyle; Banfill and Hastings, equal; Brown (E. V.), Bonneville, Humes, Handy, Duff. Class II.-Weldon; Anderson and Brooks and Taber and Tatley and Wonham and Woodward, equal; Mackenzie (D. G.); Gualtieri and Paddon, equal; Fraser and Mackeen and Porritt and Ross (J. H. D.), equal; Armstrong and Mitchell (R. J.), equal; Clarke (E. L.) and Woolward, equal; Harris and Macdonald (S. L.) and Messenger, equal; Cartwright and Crane, equal; Kerr and Thompson, equal; Carson and Lorin and Nesbitt, equal; Farquharson and Gooch and Grant and Russel and Rutherford and Wightman, equal; Spratt. Class ///.-Clarke (I. W.) and Gordon and Macnaughton, equal; Ahern (A. W.) and Parker, equal; Bradfield and Fisk and McClelland and Wain, equal; Brown (G. B.) and Wilder, equal; Eager and Martin, equal; Ahern (P. C.) and Bissell and King and Mackenzie (W. B.) and Reid (E. A.) and Wait, equal; Glen, Consineau; Bates and Mackenzie (G. H.) and Mitchell (J. M.), equal; Murphy (A. G. S.) and Wright, equal; Patterson; McDougall and Pevzner, equal; Kyle and Lawrence and Murphy (E. J.) and Reed (G.), equal; Boronow and Cloutier and Delaney, equal; Davis and Gurman and Hamilton and Munro (W. C.) and Scott and Simons and Wilson (J. M.), equal.

Third Year. — (Mechanical Engineering Course). — Class I. — Biggar, Holt, Clark (G.S.). Class II.—Notman, McLennan, Cough-

lan, Crawford; Bastable and Hulburd, equal; Morrisette, Evans, Kirsh. Class III.—Foss, Jandrew; Ford and MacNider and Ramsey, equal; Macrae and Wilson (H. A.), equal; Fry; Taylor (E. P.) and Wilson (S. H.), equal; MacGregor, Holmes, Black; Johnson and Roberton, equal.

#### MECHANICS OF MACHINES.

- Fourth Year.—Class I.—None. Class II.—Congleton and Maxwell, equal; Hall, Macfarlane; Langstroth and Wilson (J. K.), equal; Mooney, Winslow, Jenckes. Class III.—O'Halloran, Ward, Durant, Wilkins.
- Third Year.—Class 1.—Desbarats, Biggar. Class 11.—Handy, Bonneville; Bush and Clark (G. S.) and Russel, equal; Clerk; Bastable and Taber, equal; Ford and Holmes, equal; McLennan; Mitchell (R. J.) and Mott, equal; Ahern and Morrissette and Notman, equal; Holt, Jandrew. Class 111.—Roberton, Banfill; Clarke (E. L.) and Kerr and Paddon, equal; Parker, Foss, Armstrong; Anderson and Glen, equal; Hulburd and MacNider, equal; McDougall; Benett and Coughlan and Potter and Simons, equal; Crawford and Wilson (H. A.), equal; Brown (E. V.) and Johnson and Macrae and Taylor (E. P.), equal.
- Second Year.-Class I.-Buller and Culpeper and McKindsey. equal; Legg and Moore, equal; MacLaren (A. R.), Layne; Kennedy and MacNaughton, equal; Johnson and Jones and Patton and Rorke, equal; Reid (H. E.) and Rochester and Ross and Timmis, equal; Blackall and Munro (D. J.) and Oliver (J. H.) and Sherwood, equal; Bloomfield and McLagan, equal; Abbott-Smith and Cregeen and Reaper and Smith (R. M.), equal. Class II.—Antliff and Brough and Harbert and Smith (A. E.) and Turnbull and Webster, equal; Davies (C. B.) and Woollcombe, equal; Brisbane and Cuttle and Stephen, equal; Crain and Gilbert, equal; Bieler and Dalrymple and Faith and Finley and Lea and Mc-Caw, equal; Raginsky, Eadie; Cross and Tallon, equal; Goldberg and Griffith and Powell (A. T.) and Steacie and Wood, equal; Evans and Grant and Taylor and White, equal; Elkington and Fagan and Finlayson and Friedman and Gaudet and Katz and Radley and Scott (J. M.), equal; Caldwell and Holden and Horsey and Powell (F. E.) and Whittemore, equal; Budden and Downs and Dupuis and Lawrence and Taschereau, equal; Bleau and Buffam and Smith (A. W. S.) and Velasco, equal. Class III.—Binns and Jenks and Kezar and Oliver (C. J.), equal; Ambridge and Bishop (J. G.) and Carpenter and Gamble and Laidley and O'Heir, equal; Champion and Brumell and Le-Baron, equal; Desloover and Roquet, equal; Baillie and Chis-

holm and Cox and Foss (D. B.) and Hamel and Matheson and Pelletier and Read (D. E.) and Sherrard and Simpson (R. L.), equal; Bishop (E. G.) and Cooper (P. E.) and Dickinson and Stirling and Terrance and Willis, equal; Allan and Desbarats and Dormer and Hague and Owens and Peters and Shier and Toole and Wylde, equal; Armstrong and Bradshaw (G. R.) and Kingsmill and Spriggs, equal; Brodeur (J. P.) and Denis (B.T.) and Gordon and Moran (T. M.), equal; Bradshaw (F. W.) and Cleveland and Currier and Fotheringham and Holcomb and Leitch and Malone and Mills and Mitchell and Smallhorn, equal; Craik and DeSalaberry and Gegg and Parsons, equal; Jackson; Davidson and Patterson and Simpson (J. C.) and Streadwick, equal; Fleming and Gualtieri and MacNutt and Yorston, equal; Connell and Foss (L. J.) and Foster and Hamilton and Mc-Clelland and Murphy (E. J.) and Raskin and Reeve and Renouf and Stethem and Winter, equal.

### METALLURGICAL CALCULATIONS.

Third Year.—Class I.—Kyle, McClelland. Class II.—Pevzner, Humes. Class III.—Hamilton, Scott, Godard.

### METALLURGICAL COLLOQUIUM

- Fourth Year.—Class 1.—Fowler; Clark (R. G.) and Jordan, equal; Clossey and Harrison and Henderson and Nutter, equal. Class 11.—None. Class 111.—None.
- Third Year.—Class I.—Hamilton; Duff and Humes, equal; Buchanan and Mackenzie (G. H.) and Kyle and McClelland and Pevzner, equal. Class II.—Scott (P. S.), Wait. Class III.— Godard and Murphy (E. J.), equal; Morrison, McCallum.

### METALLURGICAL LABORATORY AND METALLOGRAPHY.

Fourth Year.—Class I.—Calkin and Kay, equal; Challenger, Copping; Harris and Johnston, equal; Giles and Hyndman, equal. Class II.—Yates, Purcell, Forbes, Gibbs. Class III.—None.

## METALLURGICAL MACHINERY AND DESIGN.

Fourth Year.—Class I.—Fowler, Harrison, Clark (R. G.). Class II.— Jordan, Nutter. Class III.—Clossey and Henderson, equal.

### METALLURGY.

Fourth Year.—Class I.—Fowler, Harrison, Henderson; Bain and Dewar and Gill and Saunders, equal. Class II.—Weldon, Brow, Nutter, Cromwell, Clarke (R. G.), Tansley, Rochester. Class

- 111.—Davis; Jordan and Palmer, equal; Livingstone, Mawdsley, Wells, Clossey.
- Fourth Year.—(Metallurgical Engineering Course).—Class. I.—Harrison, Jordan; Clark (R. G.) and Fowler, equal. Class II.—Nutter, Henderson. Class III.—None.
- Third Year.—(Chemistry and Chemical Engineering Courses).—Class 1.—Tatley, Grant. Class II.—Brooks and Taylor (J. E.), equal; Clarke (I. W.), Binmore, Ahern (A. W.), Macnaughton. Class III.—Munro (W.C.); Brown (G. B.) and Chorney and Farquharson, equal; Fraser and Ross (J. H. D.) and Woodward, equal; Gooch and Loebel and Midgley, equal; Carson and Wright, equal; Drummond; Boronow and Crane, equal; Mitchell (J. M.).
- Third Year.—(Metallurgical Engineering and Mining Engineering Courses).—Class I.—Humes, Scott; McClelland and Weldon, equal. Class II.—Carlyle, Bissell; Duff and Hastings, equal; Godard and Pevzner, equal. Class III.—Porritt; Kyle and Wait, equal; Wightman, Macoun, Hamilton; Mackenzie (G. H.) and Nesbitt, equal; Wilson (J. M.); Buchanan and Lawrence, equal; Davis and Morrison and Ross (C. G.), equal.

## MINE MAPPING.

Third Year.—Class 1.—Bissell and Weldon, equal. Class II.—Wightman, Carlyle, Porritt, Wilson (J. M.); Hastings and Ross (C. G.), equal; Nesbitt, Macdonald. Class III.—Davis (S. H.), Lawrence.

## MINERAL ANALYSIS.

Fourth Year.—Class I.—Saunders. Class II.—Davis (S.) Mawdsley, Weldon. Bain; Brow and Tansley, equal Class III.—Dewar; Livingstone and Wells, equal; Cromwell and Palmer and Rochester and Scriver, equal.

### MINERALOGY.

Third Year.—Class I.—Weldon; Binmore and Carlyle, equal; Bissell. Harris; Brooks and Duff, equal; Humes. Class II.—Ahern (A. W.); Tatley and Taylor (J. E.), equal; Farquharson and Loebel and Wightman, equal; Drummond and Godard and Grant and Neshitt and Wilson (J. M.), equal; Carson and Hastings and Wait, equal; Kyle, Pevzner. Class III.—Gurman; Hamilton and Woodward, equal; Ross (J. H. D.), Porritt, Gooch, Boronow; Munro (W. C.) and Wright, equal; Scott, Morrison, Lawrence, Mackenzie (G. H.); Clarke (I. W.) and Macdonald and Macnaughton and Ross (C. G.), equal.

### MINERALOGY. (DETERMINATIVE).

Third Vear.—Class I.—Weldon, Duff, Humes; Carson and Nesbitt, equal; Ahern (A. W.) and Carlyle, equal; Bethune, Taylor (J. E.), Scott, McEvoy, Munro; Binmore and Bissell, equal. Class II.—Clarke (I. W.) and Macnaughton and Wilson (J. M.), equal; Grant; Fraser and Kyle and Ross (C. G.) and Tatley, equal; Brown (G. B.) and Hastings and Pevzner, equal; Godard and Porritt, equal; Brooks; Gooch and Loebel, equal; Davis and Farquharson and Wightman, equal; Chorney; Boronow and Stockwell and Wright, equal; Hamilton and Lawrence and Morrison, equal, Class III.—McCallum and Midgley, equal; Crane and Murphy (E. J.), equal; Wait; Macdonald (S. L.) and Schleifstein, equal; Macoun; Drummond and Mitchell (J. M.), equal; Buchanan and Mackenzie (G. H.) and Ross (G. H. D.) and Woodward, equal.

## MINING COLLOQUIUM.

Fourth Year,—Class I.—Bain and G'll and Palmer, equal. Class II.— Dewar and Saunders, equal; Mawdsley and Rochester, equal; Davis, Brow; Cromwell and Weldon, equal; Seriver. Class III.—Livingstone and Tansley, equal; Wells.

### MINING ENGINEERING.

- Fourth Year.—Class I.—Mawdsley, Bain; Gill and Saunders, equal, Class II.—Palmer, Brow, Davis; Rochester and Tansley, equal; Dewar, Class III.—Cromwell; Scriver and Weldon, equal; Wells, Livingstone.
- Third Year Class I. Carlyle, Bissell, Macdonald, Class II. Duff, Hastings, Weldon, Humes; McClelland and Porritt, equal; Nesbitt, Morrison, Pevzner, Class III. Godard, Hamilton, Mackenzie (G. II.), Wait, Ross; Lawrence and Murphy, equal; Kyle, Wightman.

## MINING FIELD SCHOOL

Fourth Year,—Class I.—Dewar, Weldon; Brow and Palmer and Saunders, equal. Class II.—Cromwell and Davis, equal. Bain and Tansley, equal; Livingstone, Rochester. Class III.—Wells, Scriver.

#### MINING MACHINERY (ADVANCED).

Fourth Year.—Class I.—Saunders, Bain, Palmer, Class II.—Gill, Mawdsley, Cromwell. Class III.—Livingstone, Wells.

#### MINING MACHINERY AND DESIGN,

Fourth Year.—Class 1.—Palmer. Gill, Saunders. Class 11.—Bain and Dewar, equal; Mawdsley, Davis, Tansley, Brow, Weldon, Cromwell; Livingstone and Scriver, equal. Class 111.—Wells, Rochester, Jue.

#### MUNICIPAL ENGINEERING.

Fourth Year.—Class I.—Macphail, Cunningham. Class II.—Fortin, Watson. Class III.—Gauthier and Hannan, equal; Loy, Drewry, Robertson, Gardner; Brault and Muir, equal; O'Sull'van, Perrault.

#### ORE DEPOSITS AND ECONOMIC GEOLOGY.

Fourth Year.—Class I.—Bain. Brow, Harrison, Palmer, Saunders, Cromwell; Davis and Henderson, equal; Gil! and Mawdsley, equal. Class II.—Scriver, Tansley, Clark (R. G.), Livingstone, Weldon, Dewar, Nutter. Class III.—Fowler, Jordan, Wells, Rochester.

#### ORE DRESSING.

Third Year.—(Chemical Engineering Course).—Class 1. — Tatley, Grant, Woodward. Class 11.—Gooch, Brooks, Macnaughton, Bethune, Fraser, Farquharson, Ross (J. H. D.). Class 111.—Ahern (A. W.), Midgley, Carson, Brown (G. B.), Boronow, Loebel, Munro, Drummond.

## ORE DRESSING AND LABORATORY.

Third Year.—Class I.—Weldon, Bissell, Carlyle, Duff. Class II.—Porritt, Davis, Nesbitt; Gualtieri and Pevzner, equal; Humes, Hastings; Hamilton and Lawrence and Macoun, equal. Class III.—Kyle and McClelland, equal; Wilson (J. M.), Godard; Macdonald and Wait, equal; Ross (C. G.), Wightman, Morrison, Scott.

## ORE DRESSING LABORATORY (THESIS WORK).

Fourth Year.—Class 1.—Dewar; Palmer and Saunders, equal; Brow and Weldon, εqual. Class 11. — Davis and Mawdsley, equal; Livingstone; Bain and Gill, equal; Cromwell and Tansley, equal; Rochester. Class 111.—Wells, Scriver.

## ORE DRESSING AND MILLING.

Fourth Year.—Class 1.—Palmer, Davis, Bain, Dewar, Gill. Class 11.—Livingstone, Cromwell; Mawdsley and Wells, equal; Brow. Weldon, Rochester, Harrison; Fowler and Jordan, equal; Saunders. Class 111.—Tansley; Henderson and Scriver, equal; Nutter; Clark and Jue, equal; Clossey.

### PETROGRAPHY (ADVANCED)

Fourth Year.—Class 1.—Gill, Bain, Mawdsley. Class 11.—Cromwell, Palmer, Saunders. Class 111.—Livingstone, Wells.

## PETROGRAPHY AND LABORATORY,

Fronth Year,—Class I.—Bain, Gill, Saunders, Mawdsley, Cromwell, Class II.—Davis, Palmer, Weldon, Tansley, Henderson, Brow. Class III.—Seriver, Wells, Rochester, Jue, Livingstone.

#### PHYSICS.

Foorth Year.—Class I.—Canning, Gliddon; Anderson and Louttit, equal. Class II.—Jackson, Vineberg; Acton and Thompson (G. M.), equal; Fellows, Macdonald (D.). Class III.—Salamis, Bishop (T. A. G.), Whelen, Eaton; Hill and Kennedy, equal.

Second Year.-Class I.-Buller, Layne, Woollcombe, Culpeper; Kennedy and Moore, equal; Yorston, Wood; Desloover and Turnbull. equal. Class II.—Ross; Craik and Toole, equal; Bloomfield, Radley: Cregeen and Steacle, equal; LeBaron; Faith and Sherwood, equal; Abbott-Smith and Munro (D. J.) and Rorke and Webster, equal; Budden and Davies (C. B.) and Eadie and Mc-Naughton and Mills and Stephen, equal; Grant and Gunton and Tallon, equal; Allan and Armstrong and Gaudet and Laidley and Legg and Patton and Read (D. E.), equal. Class III.—Smith (R. M.), Moran; Connell and Gordon and Hague and Pelletier, equal; Malone and Oliver (J. H.) and Shier, equal; Bieler and Binns and Chisholm and Horsey, equal; Desbarats and McLagan and Peters, equal; Bishop (E. G.) and Cuttle and Elkington and Mitchell and Smith (A.E.), equal; Graham and Harbert and Oliver (C. J.), equal; MacLaren (A. R.) and Timmis, equal; Brough and Griffith and Jackson and Powell (A. T.) and Simpson (R. L.), equal; Dickinson and Owens and Johnson and Patterson, equal; Ambridge and Jones and Lea and Stone and Taylor and Velasco, equal; Bradshaw (F. W.) and Bradshaw (G. R.) and Buffam and Crain and Reid (H. E.) and Smith (A. W. S.) and Stirling, equal; Antlift and Brisbane and Champion and Clark and Cross and Denis and Finlayson and Holden aid Kezar and Kingsmill and McCracken, equal; Blackall and Blean and Cleve'and and Cooper (P. E.) and Cox and Dalrymple and Downs and Dupnis and Foss (D. B.) and Foss (L. J.) and Gegg and Holcomb and Katz and Lawrence and Lem'eux and McCaw and McKindsey and Matheson and Rochester and Taschercan and Terrance and White and Whittemore and Winter, equal

First Year.—Class I.—Mercier; Howes and Snyder, equal; Phipps. Class II.—Shaw (G. E.) and Shlakman, equal; McCall, Rudenko, Lanctot; Finlayson (S. M.) and Matheson (G. L.), equal; Atkinson; Benjamin and Ferguson, equal; Buzzell and Rochester and Stewart (D. L.), equal; Delcellier, Holland; Dick and James and Malone and Pringle, equal; Cochran and Farmer and Kent and Mitchell, equal. Class III.—Freedman and Manson, equal; Backing and Kirschberg, equal; Braithwaite (E. E.), Wilson (G.), Fairbairn; Finlayson (A. W.) and Weisburg, equal; Buchanan and Darling and Goldstein and Gravel, equal; Burroughs and Lane and Moore and Wilson (H.), equal; Davidson and Mac-Gilles and Muir and Paterson and Simmonds, equal; Stockwell and Trenholme, equal; Addie and Barnes and Campbell and Harris and Hayes and McNab (A. H.) and Miller (A. P.). equal; Brown and Goodall and Ogilvy, equal; Heyman and Higgerty and Olive and Schlee and Wardrope and Warren (F. B.) and Warren (W. A.) and Winter, equal; Archer and Bray and Donohue and Findlay and Logan and Luxton and McLaren and McMaster and Pollock and Rumpel and Seale and Woolsey, equal.

#### POWER PLANT DESIGN.

Fourth Year.—Class I.—Congleton, Maciarlane. Class II.—Winslow. Maxwell; Durant and O'Halloran and Wilson (J. K.), equal; Smith (D. W.), Langstroth, Ward, Mooney. Class III.—Hall, Jenckes, Wilkins.

## RAILWAY ENGINEERING. (NO. 92)

Third Year.—Class I.—McTaggart, Lorin, Spratt, Cartwright, Woolward. Class II.—Wain, Messenger, Murphy (A. G. S.), Bates, Wilder; Reid (E. A.) and Rutherford, equal; Eager and Reiffenstein, equal; Cousineau. Class III.—Thompson, Fisk; Martin and Reed (G.), equal; MacKeen and Salter, equal; Mackenzie (W. B.).

## RAILWAY ENGINEERING. (NO. 93)

Third Year.—Class I.—Wain, Wilder, Woodward; McTaggart and Messenger, equal. Class II.—Quinlan and Thompson, equal; Eager and Lorin, equal; Cartwright and Cousineau, equal; Fisk and Mackeen, equal; Reiffenstein, Murphy (A. G. S.), Spratt, Martin, Reid (E. A.). Class III.—Bates and Salter, equal; Root, Reed (G.), Mackenzie (W. B.), Bradfield, Rutherford, Delaney.

### SHOP METHODS.

Second Year.—Class I.—McNaughton; Buller and Layne, equal; Moore, Cregeen, Harbert, Craik, Bloomfield; Brumell and Cooper (P. E.) and Whittemore, equal; Ambridge and Culpeper and Gordon, equal; Antliff and Clark and Cross and Elkington and Kennedy and Radley, equal; Bieler and Carpenter and Connel and Gilbert and Mallison, equal. Class 11.—McCaw and Mills and Oliver (J. H.), equal; Faith; Lea and Malone and Willis, equal; Horsey and MacLaren (A. B.) and McKindsey and O'Heir, equal; Caldwell and Read (D. E.) and Rorke, equal; Jones and Legg and Oliver (C. J.), equal; Bishop (J. G.) and Blackall and Taschereau, equal; Binns and Gamble and Hague and Laidley and McLagan and Powell (A. T.) and Raginsky, equal; Holden and Johnson and Kezar and Smith (R. M.) and Stephen and Wood, equal; Abbott-Smith and Downs and Fagan and Finley and McLaren (A. R.), equal; Cleveland and Desloover and Dickinson, equal; Cuttle and Foss (D. B.) and Grant and Peters, equal; Bradshaw (F. W.) and Dormer and Matheson and Munro (D. J.), equal; Buffam and Foster and Jackson and Taylor, equal. Class III.—Bleau and Cox and Hamilton and Patton and Rhind and Roquet and Toole, equal; Chisholm and Graham and Sherwood and Turnbull and Bishop (E. G.) and Webster, equal; Davidson and Leitch and Reid (H. E.) and Steacie, equal; Gegg and Timmis, equal; Allan and Champion and Finlayson and Velasco and Woollcombe, equal; Brisbane and Rochester, equal; Lawrence and Livingstone, equal; Patterson; Budden and Mitchell and Pelletier and Smith (A.E.) and Smith (A. W. S.) and Spriggs, equal; Dalrymple and Evans and Katz, equal; Desbarats and Shier, equal; Baillie and Brough and Dupuis and Kingsmill and McMeans and Plow and Simpson (R. L.) and Yorston, equal; DeSalaberry and Scott (J. M.) and Tallon and Terrance, equal; Davis (W. W.) and Owens and Reaper, equal; Bradshaw (G. R.) and Davies (C. B.) and Eadie and Foss (L. J.) and Gaudet and Jerrom and LeBaron and Lemieux and MacNutt and Morin and Mulligan and Scott (L. J.) and Snyder and Stone and Streadwick and Winter, equal.

First Year — (lass I.— Fairbairn, Howes; Shlakman and Snyder, equal; Buzzell, Phipps, Stewart (H. M.); Freedman and Ogilvy, equal; Butler (B. M.); Archer and Cochran and Dick, equal; Darling; Hayes and Lanctot and Stewart (D. L.), equal; Atkinson and Weisburgh, equal; Bryant and Farmer and Findlay and McGregor, equal Class II.—Burroughs and Gravel and Finlayson (A. W.) and Manson, equal; Barnes and Campbell and Delcelier and Farrell and Ferguson and McCall, equal; Higgerty and

Matheson (A. L.), equal; Cooper and Kirschberg and Ree and Starke, equal; Addie and Couture and Dion and Heyman and MacGillis and Shaw (G. E.). equal; Buraschi and Goldstein and Harris and Holland and Malone and Kent, equal; Bray and Schlee and Trenholme and Warren (W. A.), equal; Braithwaite (E. E.) and Buchanan and Goodall and Miller (A. P.), equal; James and Rudenko, equal; Brown and Butler (E. W.) and Finlayson (S. M.) and Gray and Muir and Shatford, equal; Wilson (G.); Benjamin and Stockwell, equal; Ashby and Becking and Racev and Simmonds, equal; Bailey (L. W.) and Malkevitch and McNab (A. H.) and Mercier, equal; Draper and Rumpel and Whitehead, equal; Lawrence and LeMay and Macnab (A. G.) and Paterson and Ridout, equal; Timmins; Anderson and Donnelly, equal; Douglas and Miller (A. J.) and Naismith, equal; Gillett and Logan and Wilson (H.) and Woolsey. equal; Desloover and Lane and McLaren and Munro and Olive and Pringle, equal; Robinson and Seale and Wardrope and Warren (F. B.) and White (W. J.), equal; Brathwaite (J. Y. W.) and Merritt, equal; Allcorn and Cornell and Cram and Dwyer and Luxton and Rochester, equal; Bouchard and Giles and Moore and Morrin, equal; Boyd and Brophey and Foy and Mitchell, equal; Murray and Nixon and Whittall and Winter, equal.

### SHOP PROCESSES AND MANAGEMENT.

Third Year.—Class 1.—Bastable and Holt, equal: Biggar, Coughlan, McLennan, Holmes, Morrisette. Class II.—Ford; Crawford and Hulburd and MacGregor, equal; Wilson (H. A.), Roberton; Black and Kirsh, equal; Notman; Macrae and Potter, equal; Jandrew; Clark (G. S.) and MacNider, equal. Class III.—Evans; Elliot and Ramsey, equal; Foss, Fry, Johnson; Tucker and Wilson (S. H.), equal.

## SHOPWORK.

- Fourth Year.—Class 1.—None. Class 11.—O'Halloran; Duraut and Mooney, equal; Maxwell, Winslow, Hall. Smith (D. W.), Macfarlane. Congleton; McCurdy and Wilkins, equal; Ward and Wilson (J. K.), equal. Class 111.—Jenckes and Langstroth, equal.
- Third Year.—Class 1.—Holmes. Class 11.—McLennan and Morrissette and Wilson (S. H.), equal; Crawford and Fry and Johnson and Reeve and Tucker, equal; MacNider and Roberton, equal; Renouf, Black; Bastable and Biggar and Clark (G. S.), equal; Holt, Potter. Class 111.—Ford; Foss and Jandrew, equal; MacGregor and Macrae, equal; Kirsch, Hulburd, Coughlan Unranked Elliot.

First Year.—Class I.—Buzzell; Benjamin and Taylor, equal. Class II.— McCall and Phipps, equal; Atkinson and Bryant and Howes and James and McNab (A. H.) and Mitchell and Ree and Snyder, equal; Barnes and Shlakman and Trenholme, equal; Farrell and Miller (A. P.) and Ogilvy and Stewart (D. L.) and Stewart (H. M.), equal; Becking and Butler (B. M.) and Dick and Ferguson and Giles and Goodall and Malone and Manson and Pollock, equal; Anderson and Andrews and Bailey (L. W.) and Braithwaite (E. E.) and Freedman and Mercier, equal; Ashby and Butler (E. W. R.) and Dion and Draper and Foy and Hayes and Lanctot and Lane and Logan and Racey and Starke and White (W. J.) and Winter, equal; Buchanan and Buraschi and Burroughs and Cooper and Finlayson (A. W.) and Meikle and Rochester and Roy and Schlee and Shaw, equal; Addie and Bailey (W. E.) and Bouchard and Boyd and Cornell and Findlay and Gravel and Warren (W. A.), equal; Couture and Gillett and Heyman and Kent and McMaster and Munro and Paterson and Shatford and Smith, equal; Fairbairn and Forbes and MacGillis and Macnab (A. G.) and Millar (A. J.) and Morrin and Muir and Pringle and Ridout and Vernot and Whitehead, equal; Cram and Holland and Matheson (G. L.) and Stockwell and Wilson (H.), equal; Archer and Darling and Donohue and Douglas and Gray and Higgerty and Luxton and Naismith and Rumpel and Seale, equal. Class III.—Simmonds; Brathwaite (J. Y. W.) and Goldstein, equal; Brown and Campbell and Donnelly and Farmer and Moore and Nixon and Poulin and Weisburgh, equal; Hofmann (W. H.) and Kirshberg and Lawrence and Matheson (G. W.) and Wardrope, equal; Allcorn and Bray and McCarthy and Nutting and Rudenko and Thompson and Warren (E. B.) and Wilson (G.), equal; Olive; Dwyer and Williamson, equal; Timmins; McLaren and Torrance, equal; Davidson, Whittall, Johnson, Unranked:-Cochran, Delcellier, Finlayson (S. M.), Harris, Woolsey.

## STRENGTH OF MATERIALS.

- Fourth Year.—Class I.—Cunningham. Class II.—Fortin and Macphail, equal; Hannan, Brault, Gardner, Muir. Class III.—Farmer and Perrault, equal; O'Sullivan; Gauthier and Hart, equal; Watson; Drewry and Loy and Robertson, equal.
- Third Vear.—Class 1.—McTaggart, Russel, Bush, Bates, Mott, Lorin, Biggar. Class 11.—Murphy (A. G. S.), Morrissette, Weldon, Brown (E. V.), Bonneville, Brooks, Woolward; Cousineau and Harris and Holt, equal; Bastable, Wain; Carson and Cartwright, equal; Clarke (E. L.) and Eager and Kyle and Messenger

and Notman, equal; Mackenzie (G. H.) and Paddon and Porritt, equal. Class III.—Fraser and Wright, equal; Duff and Gordon, equal; Gurman and Parker and Taber, equal; Evans and Gooch and Martin and Patterson and Taylor (E. P.), equal; Fisk and Holmes, equal; Bradfield and Carlyle and Wonham, equal; Humes and Kerr and Mitchell (R. J.), equal; Potter and Tatley, equal; Armstrong and Rutherford, equal; Ford and Foss and Ross (J. H. D.) and Spratt, equal; Jandrew; Ahern (A. W.) and Banfill and Crawford and MacGregor and MacNider and Roberton and Tucker and Wilder, equal; Clark (G. S.) and Grant and Ramsey and Woodward, equal; Abbott-Smith and Bissell and Desbarats and Hastings and Johnson and Loebel and MacKeen and Wilson (J. M.), equal.

#### STRUCTURAL DESIGN.

Third Year.—Class I.—McTaggart, Harris, Notman, Messenger, Weldon; Biggar and Lorin and Martin and Morrissette, equal; Humes: Carson and Murphy (A. G. S.), equal; Carlyle and Ford and Hastings, equal. Class II.—Duff and Reid (E. A.). equal; Wilder; Cartwright and Spratt, equal; Bissell and Mac-Gregor, equal; Fisk; Brooks and Eager. equal; Porritt and Tatley and Wilson (S. H.), equal; Evans and Pevzner and Wright, equal; Reiffenstein and Shotwell and Wain and Wilson (H. A.), equal; Cousineau; Crawford and Jandrew, equal; Clark (G. S.) and Farquharson and Kyle and MacNider and Nesbitt, equal; McLennan and Reed (G.), equal; Holt and Macrae, equal. Class III.-Boronow; Bastable and Black and Loebel, equal; Holmes and Macdonald and Mackenzie (D. G.) and Roberton, equal; Foss; Crane and Grant and Thompson, equal; Bates and Bradfield and Clarke (I. W.) and Mackenzie (W. B.) and Wightman, equal; Ahern (A. W.) and Gooch and Wilson (J. M.), equal; Hulburd and Johnson, equal; Fraser and Patterson, equal; Mackenzie (G. H.) and Rutherford, equal; McClelland and Taylor (E. P.), equal; Delaney and Salter, equal; Abbott-Smith and Coughlan and Ross (J. H. D.), equal.

## SUMMER ESSAYS.

Fourth Year (Chemistry and Chemical Engineering Courses).—Class I.—Croft; Copping and Mitchell (F. L.) and Tinmerman and Warriner, equal; Challenger and Giles and Lordly and Smith (R. H.), equal; Calkin and Green and Jelly and Kay and Purcell, equal. Class II.—Goodwin, Lantz; Cambron and Irving and Stroud and Thompson (W. W.) and Yates, equal; Cockfield and

- Hyndman and Johnston and McIntyre, equal; Cohen and Cuddy, equal. Class III.—Forbes.
- Fourth Year (Civil Engineering Course).—Class I.—Robertson (A.M.), Cunningham. Class II.—Fortin, O'Sullivan; Hannan and Mac-Phail and Perranlt, equal; Gardner. Class III.—Branlt and Drewry and Farmer and Ferguson and Foy and Muir, equal; Gauthier and Hart and Watson, equal.
- Fourth Year (Electrical Engineering Course).—Class I.—Phelan; Eaton and Whelen, equal; Anderson (A. G.) and Fellows and Jackson and Louttit and Vineberg, equal. Class II.—Bishop (T. A. G.) and Gliddon and Thompson (G. M.), equal; Macdonald (D.) and Salamis and Sloves, equal; Vanghan. Class III.—Canning, Acton.
- Fourth Year (Mechanical Engineering Course).—Class I.—Congleton; Macfarlane and O'Halloran and Ward, equal. Class II.—Durant, Jenekes, Langstroth; Hall and McCurdy and Mooney and Wilkins, equal; Smith, Farnsworth, Maxwell, Perriton, Wilson (J. K.). Class III.—None.
- Fourth Year (Metallurgical Engineering Course).—Class I.—Fowler, Henderson; Clark (R. G.) and Harrison and Nutter, equal. Class II.—Jordan. Class III.—Clossey.
- Fourth Year (Mining Engineering Course),—Class I.—Dewar, Rochester, Mawdsley; Bain and Palmer, equal. Class II.—Gill and Weldon, equal; Cromwell and Davis and Tansley and Wells, equal; Saunders. Class III.—Brow, Seriver, Livingstone.
- Third Year (Chemistry and Chemical Engineering Courses).—Class I.—Ross (J. H. D.); Woodward, Class II.—Tatley; Boronow and Carson and Patterson (K. B.), equal; Ahern (A. W.) and Clark (I. W.) and Cohen and Fraser and Gurman and MacNaughton, equal. Class III.—Brown (G. B.) and Drummond, equal; Gooch, Brooks.
- Third Year (Civil Engineering Course),—Class I.—Reid (E. A.), Woolward, Bradfield, McTaggart. Class II.—Wain, Wilder, Lorm, Messenger; Martin and Rutherford, equal. Class III.— Cartwright, Delaney, Cromwell.
- Third Year (Electrical Engineering Course),—Class I.—Banfill, Taber, Armstrong. Class II.—Handy; Desbarats and Gordon, equal; Bonneville and Mitchell (R. J.) and Parker, equal. Class III.—Ahern (P. C.) and Kerr and McDougall, equal; Benett and Simons, equal; Brown (E. V.).
- Third Year (Mechanical Engineering Course.)—Class I.—Biggar and Crawford, equal. Class II.—Fry, Foss (R. H.), Clark (G. S.), Notman, Evans; Mackenzie (W. B.) and McLennan (G. R.), equal; Jandrew and Roberton, equal; Kirsh and Wilson (S. H.), equal. Class III.—Pfeiffer; Coughlan and Ramsey, equal.

Third Year (Metallurgical Engineering Course).—Class I.—Hamilton; Duff and Mackenzie (G. H.), equal. Class II.—Murphy (E.J.) and Scott, equal. Class III.—None.

Third Year (Mining Engineering Course).—Class 1.—Dewar, Carlyle.

Class 11.—Hastings, Weldon, Porritt, Class 111.—Macdonald

(S. L.), Nesbitt.

## SUMMER READING.

Third Year.—Class I.—Bates and Wright, equal; Spratt, Bush, Anderson, Farquharson. Class II.—Holmes and Munro (W. C.) and Potter and Wilson (J. M.), equal; Mott and Salter and Wightman, equal; MacKeen, Reed (G.), Davis; Bastable and Mitchell (J. M.), equal; Taylor (J. E.); Macnider and Pevzner and Tucker, equal; Chorney and Clarke and Grant and Humes, equal; McClelland; Crane and Jenks and Loebel, equal; Midgley. Class III.—Kyle, MacGregor; Bissell and Root and Stockwell, equal; Reiffenstein, Wait, Wonham; Eager and Ford, equal; Gnaedinger (P. E.) and Muir, equal; Quinlan; Black and Holcomb, equal; Morrissette, Gibbs, Ross (C. G.); Binmore and Cousineau and Morrison, equal.

Second Year .- Class I .- Layne and Toole, equal; Buller; Craik and Cregeen, equal; Finlayson; Bradshaw (F. W.) and Griffith and Katz, equal; Culpeper and Moore (R. A.) and Mulligan, equal. Class II.-Steacie and Timmis, equal; Chisholm and Mc-Lagan and Oliver (C. J.), equal; Ambridge and Cox and Harbert and Laidley, equal; Gordon; Jackson and Stephen, equal; Bloomfield and Champion and Livingstone and Shier, equal; Binns and Bishop (E. G.) and Gegg and Jerrom and Kingan and Read (D. E.), equal; Clark (E. L.) and Dalrymple and McEwen and Mills and Sherwood and Yorston, equal; Denis and Fagan and Matheson (A. M.), equal; Bradshaw (G. R.) and Cross and Davis and Dickinson and Gilbert and LeBaron and Munro (D. J.) and Oliver (J. H.) and Pelletier and Smallhorn and Wood, equal. Class III.—Brisbane and Dormer and Evans and Maclaren (A. B.), equal; Antliff and Currier and McMeans and Munn and Powell (A. T.) and Rorke, equal; Bleau and Buffam and Cuttle and Graham and Grant and Mac-Laren (A. R.) and Wylde, equal; Foss (D. B.) and Horsey and Parsons and Taylor and Whittemore, equal; Bishop (J. G.) and Brumell and Scott (J. M.), equal; Connell and McKindsey and Patton and Reaper and Simpson (J. C.), equal; Desbarats and Downs and Eadie and Hamilton and Johnson and Legg and Owens and Terrance, equal; Caldwell and Gamble and Lea and Simpson (R. L.) and Velasco and White (G. L. W.), equal; Foss (L. J.) and Foster and Mallison and Powell (F. E.) and Reid (H. E.) and Streadwick, equal; Allan and Blackall and Davidson and Moran and Peters and Raskin and Winter, equal; Dupnis and Elkington and Kennedy and McCaw and McCracken and Macnutt and Renoul and Snyder and Stethem and Stirling, equal.

### SUMMER SCHOOLS.

- Third Year (Fire Assaying and Metallography).—Class I.—Taylor, Class II.—Binmore, Class III.—None.
- Third Year (Inorganic Qualitative Analysis).—Class I.—None. Class II.—Tatley, Clarke, Farquharson, Brooks; Crane and Duff, equal. Class III.—Gurman, Grant; Pevzner and Ross (J. H. D.), equal; Gooch; Boronow and Humes and Loebel, equal; Carson and Mitchell (J. M.) and Munro and Scott, equal; Ahern and Macnaughton, equal; Hamilton and MacKenzie (G. H.), equal; Brown (G. B.) and Stockwell and Woodward, equal.
- Third Year (Inorganic Qualitative Analysis Laboratory).—Class I.—Clarke, Crane, Humes; Farquharson and Macnaughton, equal; Gurman and Loebel and Woodward, equal; Ahern and Gnaedinger (P. E.), equal. Class II.—Brooks and Grant and Kyle, equal; Fraser and Wright, equal; Ross (D. R.) and Ross (J. H. D.) and Stockwell, equal; Boronow and Drummond and Gooch and Mitchell and Tatley, equal; Abbott-Smith and Buchanan and Chorney and Hamilton, equal; Carson and Duff, equal: Brown and Clossey and MacGlashan, and Morrison, equal. Class III.—Scott, Pevzner; Godard and Wait, equal; McCallum and Munro, equal; Macoun and Murphy (E. J.), equal; MacKenzie (G. H.) and Midgley, equal.
- Third Year (Metallurgical Works).—Class I.—Fowler, Harrison. Class II.—Jordan and Henderson, equal. Class III.—Clarke (R. G.) and Clossey and Nutter, equal.
- Third Year (Shopwork).—Class I.—McLennan, Clark, MacNider, Ford, Gould. Class II.—Biggar and Holmes, equal; Fry and Evans, equal; Macrae, Holt; Johnson and Foss, equal; Crawford and Coughlan and Jandrew, equal; Bastable and Notman, equal; Jenks and Wilson (H. A.), equal. Class III.—MacGregor, Turley, Kirsh. Unranked:—Pfeiffer.

## SURVEYING

Third Year (Civil Engineering Course).—Class I.—McTaggart, Cartwright. Class II.—Cousineau, Eager, Reiffenstein, Woolward. Class III.—Rutherford; Murphy (A. G. S.) and Thompson, equal; Spratt, Martin; Bates and Lorin and Messenger and

Wain, equal; Wilder; Bradfield and Fisk and MacKeen and Mackenzie (W. B.) and Reid (E. A.) and Salter, equal.

Third Year (Mining Engineering Course).-Class I.-Carlyle, Bissell. Class II.-Weldon, Hastings, Nesbitt. Class III.-Wilson (J.M.),

Lawrence, Porritt, Davis, Wightman.

Second Year .- Class I .- Layne and Moore, equal; Kennedy and Radley, equal; Buller and Laidley, equal; Wood; Culpeper and Timmis and Yorston, equal; Harbert and Read (D. E.) and Steacie, equal; Smith (R. M.); Gilbert and Webster, equal; Cregeen and Ross, equal; Binns and Denis (B. T.) and Gegg, equal; Stephen; Bloomfield and Brough and Matheson and Oliver (J. H.), equal; Connell and Munro (D. J.) and Rorke and Sherwood, equal; Class II. — Eadie, Powell (A. T.) and Toole, equal. Simpson (R. L.); Armstrong and Grant and Kezar and Mc-Kindsey, equal; Blackall and Cooper (P. E.) and Finlayson and Gordon and Taylor and Willis, equal; Budden; Ambridge and Crain and Desloover and MacLaren (A. R.) and Smith (A. E.), equal; Downs and Jackson and McNaughton and Mitchell and Peters, equal; Antliff and Desbarats and Johnson and Patton and Scott (J. McD.), equal; Owens and Turnbull, equal; Finley and Foss (D. B.) and Foster and Raskin and Taschereau, equal; Cox and Dupuis and Goldberg and Woollcombe, equal; Bradshaw (G. R.) and Chisholm and Dickinson and Holden and Legg, equal; Allan and Bieler and Bishop (E. G.) and Brodeur (J. C.) and Dairymple and McCaw and Powell (F. E.), equal; Cuttle and Davies (C. B.) and Hague and Lea and Moran (T. M.) and Simpson (J. C.) and Stone and Tallon, equal. Class III.—Craik and Lawrence and Livingstone and Reid (H.E.) and White and Winter, equal; Fagan and Malone and Smallhorn, equal; Champion and Cleveland and Currier and Davidson and DeSalaberry and Graham and Griffith and Munro (G. H.), equal; Cross and Pelletier and Roquet, equal; Abbott-Smith and Amos and Foss (L. J.) and McLagan and Plow, equal; Gaudet and Morin (C. A.) and Rochester and Shier and Whittemore, equal; Cooper (H. C. D.) and Gamble and Jones and Katz and Smith (A. W. S.) and Terrance, equal; Brisbane and Dormer and O'Heir, equal; Buffam and Clark and Snyder and Streadwick and Wilson, equal; Carpenter and Elkington and Jenks and LeBaron and Maclaren (A. B.) and Mallison and McCracken and Stethem, equal; Bleau and Faith and Horsey and McNutt and Raginsky and Velasco, equal; Bishop (J. G.) and Evans and Kingan and Parsons and Wylde, equal; Fleming and Jerrom and Patterson and Renouf, equal; Brumell and Caldwell and Reaper, equal; Baillie and Hamilton and Kingsmill and Mulligan and Rhind and Scott (L. J.) and Stirling and Strong, equal.

#### SURVEYING FIELDWORK

Third Year.—Class I.—Wain and Weldon, equal; McTaggart and Nesbitt, equal; Bates and Bissell and Carlyle and MacKeen, equal; Class II.—Murphy (A. G.) and Reiffenstein and Thompson, equal; Wilder; Bradfield and Wilson (J. M.), equal; Messenger, Woolward; Davis (S. H.) and Root, equal; Fisk and Gnaedinger (A. L.) and Martin and Palmer and Quinlan and Wightman, equal; Gooch and Hurtubise and Lawrence and Salter and Spratt, equal; Cartwright and Wells, equal; Turton and Wheeler, equal; Hastings. Class III.—Eager; Cousineau and Jue and Reid and Tucker, equal; Hamel and Lorin, equal; Dineen, Cromwell, Gualtieri, Unranked:—MacDonald, Porritt, Ross, Rutherford.

Year.—Class 1.—Chisholm, Craik; Ambridge and Eadie Second and Faith and Moore and Shier and Toole, equal; Laidley and McMeans and Mills and Steacie and Stephen, equal. Class II.-Binns and Munro (D. J. B.) and Streadwick and Timmis, equal; Hamilton and James and Kingan and Lawrence and LeBaron and McLeod, equal; Armstrong and Cregeen and Morin (C. A.) and Munro (G. II.) and Powell (A. T.) and Read and Rochester and Whittemore, equal; Terrance; Connell and Desbarats (G. 11.) and Turnbull (A. R.), equal; Cope and Cross and Jerrom and McLagan and Radley and Rorke, equal; Berry and Bradshaw (F. W.) and Brisbane and Reid and Rhind, equal; Adams and Champion and Cuttle and Dalrymple and Foss (1) B.) and Herman and McNaughton and Taylor (M. B.). equal; Baill'e and Harbert and Kennedy and Lewis and McKindsey and Oliver (C. J.) and Paterson and Ross (A. E.), equal; Bicler and Harling and MacNutt and Parsons and Sherwood and Wilson (P. R.) and Winter, equal; Buller and Evans and Holden and Peters and Plow and Smith (A. E.) and Stethem, equal; Abbott-Smith and Elkington and Finlayson and Graham and Legg and Oliver (J. H.) and Patterson (T. B.) and Raginsky and Scott (J. M.), equal; Cooper and Davidson (S. C. K.) and Dickinson and Downs and Foss (L. J.) and Horsey and Me-Innes and Olive and Reaper and Stone and Taylor (C. W.) and Torrance and Wood, equal; Ball and Dormer and Katz, equal; McDermott and McDonald and Owens and Russell and Tallon, equal (lass III. Bouillon and Caldwell and Clerk and Johnson and Martin and Robinson and Roquet and Willis and Zybach, equal; Brumell and Desbarats (H. J.) and Gilbert and Livingstone and Matheson and Moran and Nutting and O'Heir and Pelletier and Ross (M. V.) and Wilson (H.), equal; Allan (J. M.) and Anderson and Denis and Fagan and Macaulay and Murray and Yorston, equal; Braithwaite and Carpenter and Cox and Currier and Leitch and McCaw and McEwen and Renoui and Scott (L. J.), equal; Antliff and Blackall and Brodeur (J. C.) and Brough and Cleveland and Davidson (W. M.) and Davies and Gaudet and Goldberg and Patterson (A. L.) and Snyder and Smith (R. M.), equal; Bishop (E. G.) and Campbell (D. H.) and White (C. P.), equal; Bishop (J. G.) and Bloomfield and Bradshaw (G. R.) and Powel! (F. E.) and Velasco, equal; Allan (D.H.) and Buffam and Gamble and Gauthier and Gegg and McCracken and Sherrard, equal; Brodeur (J. P.) and Desloover and Lea and Parrott and Patton and Taschereau, equal; Griffith and Murphy (M.P.) and Roughsedge, equal; Goldstein; Poulin and Timmins, equal; Mallison and Smallhorn and Stirling, equal. Unranked:-Crain, Davis, Echlin, Elvidge, Finley, Fleming, Foster, Gordon, Grant, Jackson, Maclaren (A. B.), MacLaren (A. R.), MacLaren (J. N.), Mulligan, Simpson (R. L.), Webster, White (G. L. W.).

### THEORY OF STRUCTURES.

Fourth Year.—Class 1.—Cunningham, Muir. Class 11.—Fortin and O'Sullivan, equal; Brault and Gardner, equal; Gauthier, Mc-Phail, Hannan. Class 111.—Watson, Perrault, Loy. Robertson, Farmer, Drewry, Hart.

### THERMODYNAMICS.

Fourth Year.—Class 1.—Congleton and Winslow, equal; O'Halloran, Class 11.—Langstroth, Maciarlane, Class 111.—Wilson (J. K.), Hall; Jenckes and Mooney, equal.

Third Year.—Class I.—Biggar; Mott and Russel, equal; Bush and Wonham, equal; Paddon, Taber, Desbarats, Clarke (E. L.). Class II.—Wilson (H. A.); Bonneville and Evans, equal; Banfill and MacGregor and McDougall, equal; Mitchell (R. J.); Bastable and Morrisette, equal. Class III.—Clark (G. S.); Brown (E. V.) and Elliot and Fry and Gordon, equal; MacNider, Notman, Taylor (E. P.); Ramsey and Roberton, equal; Benett and Macrae, equal; Wilson (S. H.); Armstrong and Crawford, equal; Ahern and Anderson and Coughlan and Ford and Jandrew and Kerr, equal.

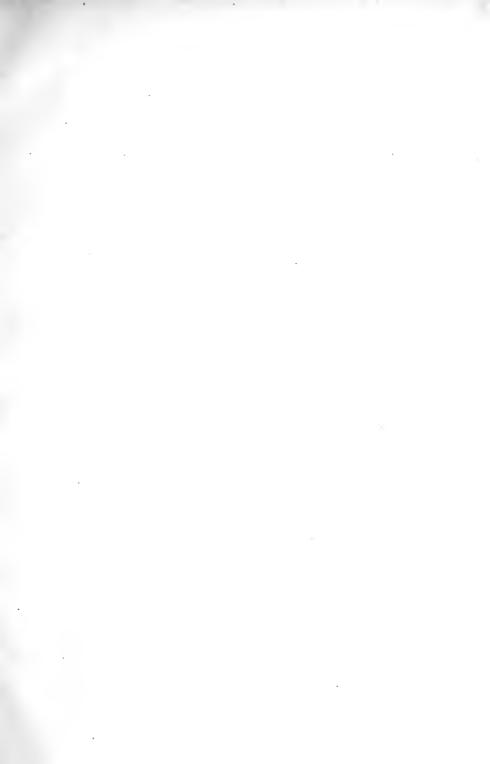
#### WORKS ORGANIZATION AND ACCOUNTING.

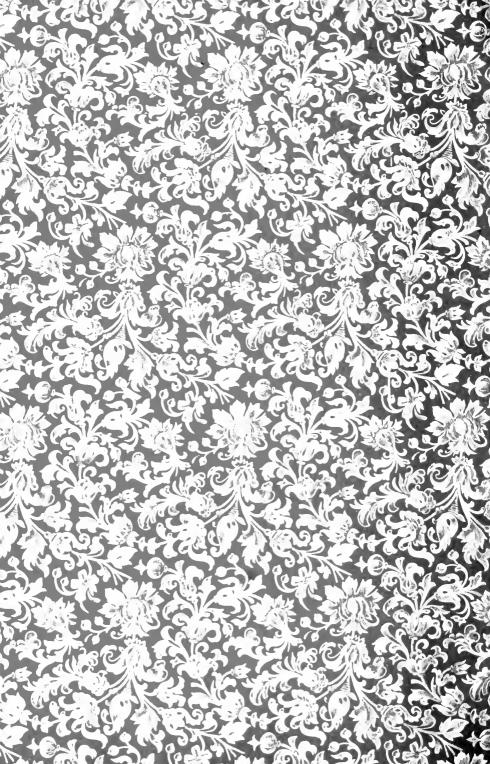
Fourth Year.—Class 1.—Maciarlane, Congleton, Langstroth. Class 11.—Winslow, O'Halloran, Wilson (J. K.), Jenckes, Smith (D. W.), Maxwell. Class 111.—Mooney and Wilkins, equal: Durant, Hall.











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McGill University, Montreal Calendar

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